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Quality Development of CRM Facilitated Business Processes

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ABSTRACT OF THE MASTER'S THESIS

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This study examines the possibility of combining Balanced Scorecard and Customer Relationship Management (CRM) system for measuring and developing marketing process performance and quality. First, a literature review is conducted to establish the model based on previous research. Second, an empirical study in a case company is conducted to examine the company's perspective.

The data was collected from eight interviews involving top management and specialists in the case company and conducting a focus group discussion. Documented processes and existing scorecards were also included in the empirical data. The data was categorized to discover if the combining of systems could be done in the case company and what are the requirements for that implementation.

The findings of the study are based both on the theoretical literature review and results from the empirical research on the case company support combining Balances Scorecard approach with CRM system to measure and direct the marketing process to achieve better performance and quality.

The most important requirements for the implementation involve the way of working. There has to be a sound process supporting the regular assessment and defining stakeholders of the Balanced Scorecard. Company has to have well defined processes for customer-oriented actions, such as sales process. The CRM system needs to support target setting and reporting over time to provide easy access to the customer data and to maintain and help the daily work in different units of the organization.

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Tutkimus tarkastelee tuloskortin (Balanced Scorecard) ja asiakashallintajärjestelmän (CRM) yhteensovittamista markkinointiprosessin mittaamiseksi ja laadun parantamiseksi. Kirjallisuuskatsauksen perusteella muodostetaan aikaisempaan tutkimukseen tukeutuva viitekehys. Tutkimuksen empiirisessä osiossa samaa kehystä tutkitaan kohdeyrityksen näkökulmasta.

Tutkimuksessa käytetty aineisto kerättiin kahdeksasta kohdeyrityksen johdolle ja asiantuntijoille suunnatusta haastattelusta ja yhdestä ryhmäkeskustelusta sekä prosesseja ja olemassa olevia tuloskortteja kuvaavista dokumenteista. Aineiston ryhmittelyn perusteella saatiin esille vaatimukset järjestelmien yhteensovittamiseksi.

Tutkimuksen tulokset niin kirjallisuuskatsauksen kuin empiirisen osion puolesta tukevat Balanced Scorecardin ja CRM järjestelmän yhdistämistä markkinointiprosessin mittaamiseksi ja laadun parantamiseksi.

Tärkeimmät vaatimukset toteuttamiselle liittyvät päivittäiseen työntekoon. Yrityksessä täytyy olla hyvin perusteltu tuloskorttia tukeva prosessi, joka määrittää yksiselitteisesti aikataulutuksen sekä osallistuvat osapuolet. Lisäksi yrityksessä tulee olla hyvin määritellyt asiakkaiden kanssakäymistä ohjaavat prosessit, esimerkiksi myyntiprosessi. CRM järjestelmän pitää tukea niin tavoitteiden asettamista kuin historiatietojen raportoimista taatakseen helpon pääsyn asiakastietoihin ja helpottamaan päivittäistä työntekoa organisaation eri yksiköissä.

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I would like to thank my instructor Panu Laasonen and my supervisor Timo Korhonen for their encouragement during the project. I also wish to thank Jukka Niiranen for continuously helping with the challenges.

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Espoo, April 28th, 2010

Tuure Vuorinen

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Key Concepts

Quality Management

Quality management is the approach used for evaluating process performance to reduce costs resulting from internal and external defects and for improving the customer's general satisfaction (Fisher, Nair 2009, Ching-Chow Yang 2009, Krajewski, Ritzman & Malhotra 2007).

In the narrowest sense quality is defined as providing something that meets the requirements of the person utilizing the product or services. A wider perspective of quality defines how an enterprise goes about its business, inspired by a theory that acts as a guiding principle for behavior and informed by the knowledge and knowhow needed to make it happen (Ching-Chow Yang 2009).

Four key concepts are presented in this study: Total Quality Management (TQM) is the central philosophy for modern quality management. Statistical Process Control (SPC) supports that philosophy by providing statistical methods and techniques for process evaluation. Six Sigma is another popular approach for quality management relying heavily on the TQM tools and principles. ISO 9000 is an international standard used for the documentation of company's quality programs (Krajewski, Ritzman & Malhotra 2007).

Balanced Scorecard

Kaplan and Norton describe the Balanced Scorecard as a framework that translates objectives into a coherent set of performance parameters (Kaplan, Norton 1993). It contains measures from four perspectives. By combining traditional financial measures with customer perspective, internal business processes, and learning and growth perspectives, it gives information both on past performance and provides predictions for the development in the future. Each perspective describes objectives to achieve and measures to estimate the progress towards objectives. Measures have targets which in turn need to be put into action driving towards those targets (Kaplan, Norton 1996).

Strategy maps and a standard template help companies to communicate their strategy and processes into the organization by generating a visual representation of linked components (Kaplan, Norton 2000). Balanced Scorecard with Strategy Maps facilitates the linking of measures from all the four perspectives to be translated into a series of cause-and-effect linkages (Kaplan, Norton 2004b).

Balanced Scorecard can be used as a part of the management system and strategic themes are effectively the tools forming the heart of the system (Kaplan, Norton 2006). Each theme consists of a vertical chain of cause-and-effect relationships linking objectives, measures and initiatives that span the four perspectives of the Balanced Scorecard. Each objective and measure in the theme is supported by one or more strategic initiatives, which in turn defines the resources and actions required implementing the strategic theme (Kaplan, Norton 2006).

Marketing

Marketing represents the customer focus of an organization. The traditional marketing definitions have focused on the marketing function and on delivering pre-produced value to customers (Grönroos 2006) and developing the marketing mix to passive customers (Harker, Egan 2006). However, the development of the competitive environment has shown challenges in the traditional transactional marketing and during last decade new perspectives like relationship marketing have risen (Harker, Egan 2006).

Relationship marketing is regarded as one of the key developmental areas of modern marketing. The core idea of the relationship management is the interpersonal interaction between buyer and seller and it is based on the practices and experiences on the business-to-business markets. Among several leading scholars it is seen as a paradigmatic shift in marketing approach (Grönroos 2006, Harker, Egan 2006).

Marketing Performance measurement in turn is the assessment of the relationship between marketing activities and business performance (O'Sullivan, Abela 2007). Don O'Sullivan and Andrew V. Abela carried out an extensive research into marketing performance management's effect on companies' performance and conducted how it has a significant impact on firm performance, profitability, stock returns and marketing's stature within the firm (O'Sullivan, Abela 2007). Yeung and Ennew proved how customer satisfaction is linked to profitability. The impact is positive but direct effects are generally small (Yeung, Ennew 2000).

Customer Relationship Management (CRM)

Customer Relationship Management is a relatively new management discipline, beginning in the 1990s, with its roots in relationship marketing. It is the outcome of the continuing evolution and integration of marketing ideas and newly available data, technologies and organizational approaches (Payne, Frow 2006). Customer Relationship Management can be seen from multiple viewpoints and there have been a great deal of studies of the concept during the last 15 years. It has many definitions for the concept, for its framework and for the perspectives.

According to the literature, the common definition of the concept has begun to reach a consensus: CRM relates to strategy managing the dual-creation of value, the intelligent use of data and technology, the acquisition of customer knowledge and the application of this knowledge to appropriate stakeholders, to develop appropriate relationships with specific customers and to integrate processes across many areas of the firm and across the network of firms that collaborate to generate value (Harker, Egan 2006, Payne, Frow 2006, Kim, Suh & Hwang 2003, Reinartz, Krafft & Hoyer 2004, Kim, Kim 2009, Hsin 2007, Tamošiūnienė, Jasilionienė 2007). Three perspectives for CRM strategies have been examined in various articles. CRM can be strategically embedded within either customer intimacy or operational excellence strategy or then with tactical implementation, without specific strategic background (Langerak, Verhoef 2003, Iriana, Buttle 2006, Peppers, Rogers 2004).

Building relationships and learning from customers is profitable to the company. The average company spends six times more to get a new customer than it does to hold a current one (Rosenberg, Czepiel 1983). The longer customers are retained by a company, the more profitable they become because of increased purchases, reduced operating costs, referrals, price premiums, and reduced customer acquisition costs (Reichheld, Sasser Jr. 1990). Learning from customers enables a company to develop more personalized and collaborative interactions and to increase the value of the customer base (Peppers, Rogers 2004, Humphreys et al. 2009).

Concept Diagram of the Thesis

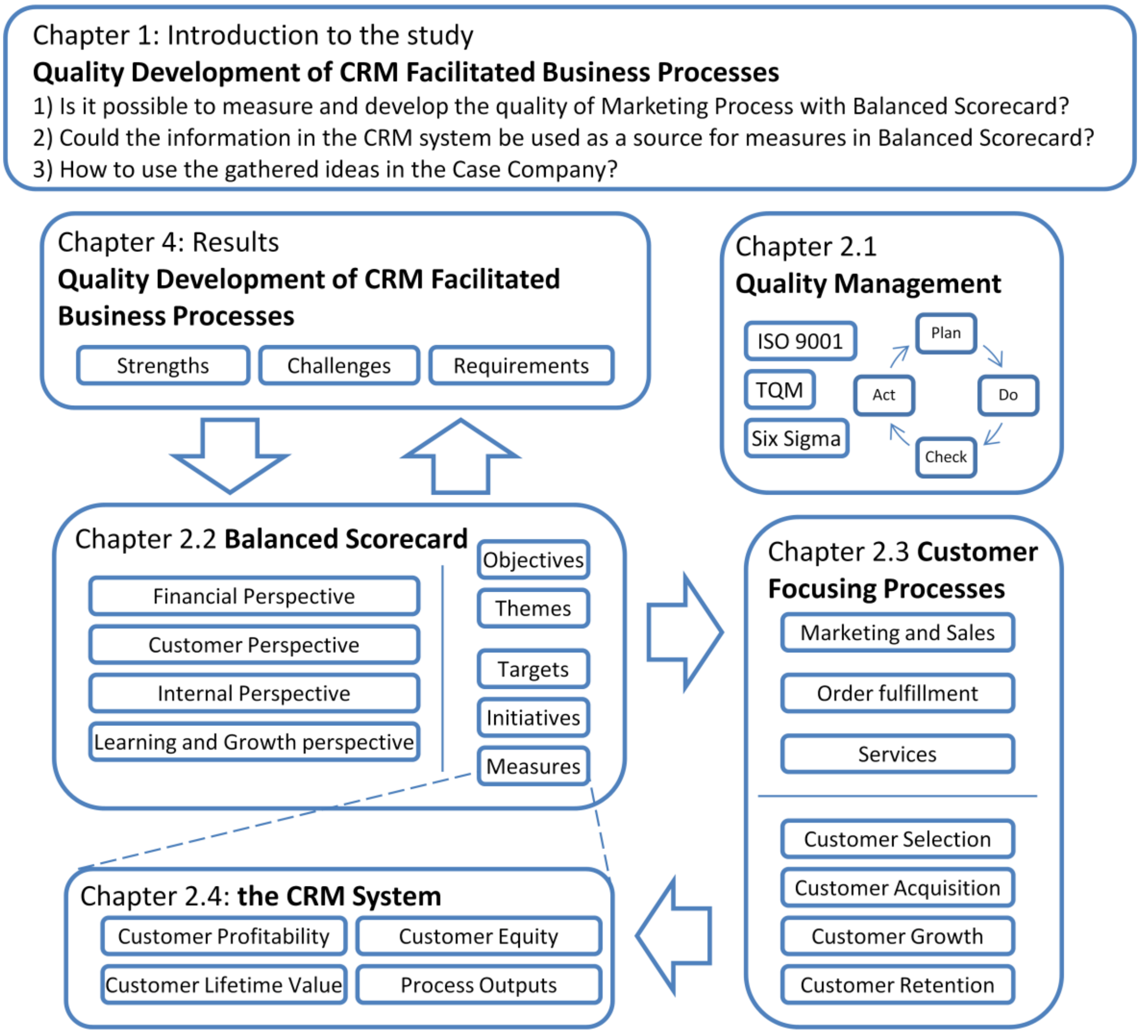

Figure 1: Quality Development of CRM Facilitated Business Processes

The concept diagram of the thesis can be seen in figure 1. It describes the structure of the thesis and provides the background for the study conducted in a case company, where Balanced Scorecard is used for strategy implementation and action planning, and the CRM system is the central tool for employees working with customers.

The concept diagram presents also research questions for the study:

1) Is it possible to measure and develop the quality of Marketing Process with Balanced Scorecard?
2) Could the information in the CRM system be used as a source for measures in Balanced Scorecard?
3) How to use the gathered ideas in the Case Company?

Results from the conducted study in the case company present the strengths, challenges and requirements for the system development in the organization combining the Balanced Scorecard with the CRM system.

1. Introduction

1.1. Objectives and background

The importance of understanding the information gathered in diverse business intelligence systems will increase in the future. The Economist discussed in a recent issue how information in its all forms is transforming traditional business (Economist 2010). The amount of electronically recorded data is enormous and those who can exploit it have a great potential by not only reading the data, but analyzing what is behind it: what are the reasons for specific effects.

The same challenge but from a different perspective was introduced by Fisher and Nair in their recent article (Fisher, Nair 2009). They discuss how sound statistical thinking within the business performance measurement is critical to achieve the goal of developing systems. Critical outcomes of the performance measurement systems should include (Fisher, Nair 2009):

- A quantitative basis for Boards for managing different risks, such as operational risk, risk of a change in competitive environment, risk of losing a partnership etc
- Means for selecting improvement activities likely to have the most impact on the business for leadership teams
- A basis for monitoring, controlling and improving processes that aligns with internal and external customer requirements for people working in the enterprise

Fisher and Nair continue by describing how the current common way of working is not enough. Monthly board reports frequently provide little more than financial statements – and even they are provided in tabular form, rather than supported by trend charts and other well-chosen graphics – and little else, to the assist management of risk (Fisher, Nair 2009). Similar challenges can be seen in the case company studied in the thesis. Powerful tools and concepts for management are used but the analysis of information could be conducted even forward to provide a deeper understanding, containing data from different perspectives and systems.

Various researches have proven how different management tools do have a positive impact on the revenue (Kaplan, Norton 1992, O'Sullivan, Abela 2007, Rosenberg, Czepiel 1983). For example, Total Quality Management philosophy focuses on reducing costs resulting from defects (Krajewski, Ritzman & Malhotra 2007) and Balanced Scorecard aims at aligning the company effectively with the strategy (Kaplan, Norton 2000).

The case company operates in a multinational business-to-business market. It uses Balanced Scorecard to strategy implementation and performance measurements, and Customer Relationship Management system to support daily business actions with customers. This combination establishes the framework for this study, searching for answers to the following research questions:

1) Is it possible to measure and develop the quality of Marketing Process with Balanced Scorecard?
2) Could the information in the CRM system be used as a source for measures in Balanced Scorecard?
3) How to use the gathered ideas in the Case Company?

The study is based on the literature review of research into Process Quality Management, Balanced Scorecard, Marketing Performance measurement and Customer Relationship Management, and on an empirical examination of how those organizational tools could be combined to achieve better performance and quality in the marketing process of the case company.

The first part of the thesis discusses the theoretical background for the research. The second part presents the case company's current daily way of working, and examines how different tools could be combined by conducting interviews and focus group discussion with the management. The results of the study identify the strengths and challenges from measuring marketing process with Balanced Scorecard and using CRM system as a source for the measures in the scorecard. Results also discuss requirements for the organization, for its management processes and for the CRM system development in the case company in order to combine the Balanced Scorecard approach with the CRM system.

1.2. Research Methodology

Qualitative research

This study is by its nature qualitative, aiming at finding requirements for combining Balanced Scorecard and CRM system for developing marketing process performance. The qualitative research tries to provide a description of the nature of a certain phenomenon and interpret it and concepts related. It helps in the verification of assumptions or theories and can be used in evaluation of practices (Leedy, Ormrod 2005).

Qualitative approach can help define what is important. Research problems are often on a general level and more specific questions can be formulated as the study proceeds (Leedy, Ormrod 2005). Because of the nature of the research, there are no strict limits for specific methods used (Leedy, Ormrod 2005, Eisenhardt 1989). The aim of this study is to reveal the possibilities for combining different concepts used already.

As there were no strict limits for methods, there is no single right way to analyze the data (Leedy, Ormrod 2005). In this study the data-analysis is done with the spiral approach suggested by Creswell (Leedy, Ormrod 2005). According to that concept, the first step is to organize the data and break it down into smaller bodies if needed. Then the data is explored to get a sense of what it contains. Based on the general view, different general categories and themes can be identified. During the last step hypothesis and propositions are generated and connected with summarized observations from the collected information.

Research based on the qualitative approach has potential problems regarding the subjective and biased opinions of the researchers. That needs to be remembered during the study and the effects can be minimized with some good practices. Multiple various perspectives for collecting data from different sources and looking at evidence that contradicts hypothesis during the data collection helps with getting more objective approach (Leedy, Ormrod 2005).

Based on an extensive literature review, Leedy and Ormrod suggested nine criteria for assessing the quality and worth of qualitative proposal (Leedy, Ormrod 2005):

1. Purposefulness of research questions driving the methods used
2. Explicitness of assumptions and biases
3. Rigorous methods to collect and analyze data

4. Open-mindedness to modify interpretations in case of conflicts
5. Completeness of the objective of the study in all its complexity
6. Coherence of findings from multiple sources
7. Persuasiveness of logical arguments
8. Consensus of interpretations and hypothesis among other individuals
9. Usefulness of the study

Results of the qualitative study will be influenced by the researcher's opinions and interpretations. Careful evaluation of the study helps achieve reliable results but it is important to acknowledge the context and biases of the study in the final report (Leedy, Ormrod 2005).

Methods for collecting data

This study relies principally on different interviews to act as the data collecting method. The present situation in the studied company was reviewed by interviewing employees in managerial and specialist positions. The overall understanding of the marketing process goal setting and measurement needs was examined with a focus group discussion.

Interviews in qualitative study are often semi-structured and open-ended. They can relate to facts, beliefs, feelings, motives, behavior or reasons for actions for feelings (Leedy, Ormrod 2005). Focus group discussion is a slightly different approach to the interview. It is a useful method in such situations, when time is limited or the researcher is having difficulty interpreting what he or she has observed (Leedy, Ormrod 2005). People might feel more comfortable talking in groups and the interaction among participants may be more informative (Lewis 2000).

1.3. Structure of the thesis

The study is divided into five different chapters. The first chapter describes the background and objectives of the work and how it is conducted. The second chapter contains literature review of process quality management, Balanced Scorecard and marketing performance measurement in general. It ends with a review of Customer Relationship Management as a process for managing customer relationship and as a tool for collecting data

The third chapter presents the conducted empirical study. Its results are discussed in the fourth chapter and the summarized in the fifth chapter.

2. Theory

The second chapter presents the theoretical background of the work. It begins with an overview of the Process quality management and continues to the literature review of the Balanced Scorecard. The presentation of a general measuring concept is followed with a short history and definition of Marketing and its performance measurement. The chapter ends with a review of Customer Relationship Management as a process for managing customer relationship and as a tool for collecting data.

2.1. Process performance and Quality

This section highlights the essential principles of the Process performance measurement and quality improvement. It begins with the behind the quality improvement. A short history review defines the key concepts, before the literature review of the integration of system quality within organization frameworks.

2.1.1. What is quality and its management

In the narrow sense quality is defined as providing something that meets the requirements of the person acquiring the product or receiving the services. The wider perspective of quality defines is how an enterprise goes about its business, inspired by a theory that acts as a guiding principle for behavior and informed by the knowledge and know-how needed to make it happen (Ching-Chow Yang 2009).

Quality management is the approach for evaluating process performance to reduce costs resulting from internal and external defects and for improving the customer's general satisfaction (Fisher, Nair 2009, Ching-Chow Yang 2009, Krajewski, Ritzman & Malhotra 2007).

2.1.2. Why Quality – Costs of poor process performance and quality

If the process fails to satisfy a customer, it is considered as defective. Most experts estimate that losses due to poor performance and quality range from 20 to 30 percent of total sales (Krajewski, Ritzman & Malhotra 2007). These costs can be broken down into four major categories: Prevention costs, appraisal costs, internal failure costs and external failure costs (Krajewski, Ritzman & Malhotra 2007).

Prevention costs are associated with preventing defects before they happen. Appraisal costs are incurred when a firm assesses the performance level of its products. Internal failure costs result from defects that are discovered during the production-stage. These defects fall into two further different categories: Rework means actions needed to correct the failure and Scrap occurs if the defective item is unfit for further processing (Krajewski, Ritzman & Malhotra 2007).

External failure costs arise when a defect is discovered after the customer receives the service or product. Correcting failures after the product is in the customer's hands is costly and has multiple effects if the customer is dissatisfied and spreads the harmful information among friends or colleagues. External failure costs also include warranty service and litigation costs (Krajewski, Ritzman & Malhotra 2007).

Evaluating processes is important to prevent exceptional performance and to manage value chains. It is the tool to reduce costs resulting from internal and external failures and improving the quality (Krajewski, Ritzman & Malhotra 2007).

2.1.3. Past and the future

The foundation

Fisher and Nair conducted a deep literature review of the history of Quality Management in their article (Fisher, Nair 2009). Based on that article, roots for the quality assurance can be identified in the Medieval times. Craftsman began to establish guilds for developing formal procedures for product and service quality and enforced those strictly. Goods were regularly inspected and marked with different symbols. A similar approach was used in the industrialized world until the Industrial Revolution in the early 19^{th} century, when mass production and later on the scientific management concept organized work into specialized tasks. Inspection was used to make sure that the products shipped to customers were of good enough high quality (Fisher, Nair 2009, Huczynski, Buchanan 2007).

The birth of modern statistical process control is widely attributed to Walter Shewhart. He presented the idea in the 1920's and it was furthered with Harold Dodge's and Harry Romig's work with scientific sampling plans for inspection. The start of formalized good management practices can be seen in the 1920's (Fisher, Nair 2009).

The process of post-War reconstruction in Japan started the next period of development in the Quality Management. General Douglas MacArthur and Homer Sarasohn established a communications industry in Japan. The arrival of American consultants to Japan to transfer knowledge and skills provided the basis for a remarkable transformation of Japanese Industry. The developments by the Japanese themselves after 1950 provided a culture of continuous improvement that suited to Japanese industry. Quality Circles, Ishikawa diagram, scatterplot and parameter design are well-known in the field of quality management (Fisher, Nair 2009).

Modern quality management

Based on Fisher's and Nair literature review, the quality management was a major theme in Japanese management philosophy after the 1950's but in the western world the quality revolution started during the beginning of the 1980's, and concepts like Total quality management and Six Sigma became familiar. Quality management consultancies blossomed and companies started defining quality in terms of customers, and understanding the customer needs became the competitive advantage (Fisher, Nair 2009).

The increasing usage of Standards such as ISO 9000 also had an effect on the quality management popularity. Standard defines needed requirements for suppliers, forcing them to develop their processes, document the practices and improve measurement capabilities (Fisher, Nair 2009).

Meeting customer needs was not enough anymore during the 1990s. The change in the perspective was from quality to business excellence, with clear focus on business results. According to Fisher and Nair, the next major step for Quality Management would be development of systems for performance measurement (Fisher, Nair 2009).

2.1.4. Key concepts – how to develop and measure quality

The book "operations management: processes and Value Chains" provide a sound representation of the key concepts in the quality management field (Krajewski, Ritzman & Malhotra 2007). Four different key concepts seen in the figure 2 are presented in this section: Total Quality Management (TQM) is the central philosophy for modern quality management. Statistical Process Control (SPC) supports that philosophy by providing statistical methods and techniques for process evaluation. Six Sigma is another popular approach for quality management relying heavily on the TQM tools and principles. ISO 9000 is an international standard family for the documentation of company's quality programs (Krajewski, Ritzman & Malhotra 2007).

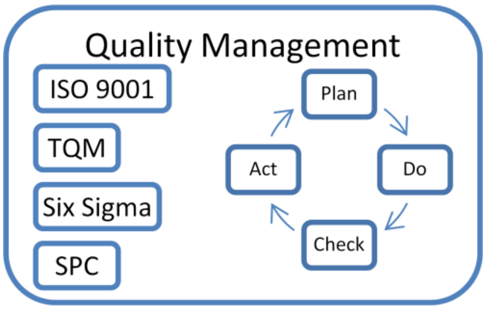

Figure 2: Key Concepts of the Quality Management

Total Quality Management

Total Quality Management (TQM) can be defined as a philosophy that stresses three principles for achieving high levels of process performance and quality: customer satisfaction, employee involvement and continuous improvement in performance (Krajewski, Ritzman & Malhotra 2007). It can be seen in its broadest sense to examine all aspects of management. All leading management thinkers recognize that there is more to quality than statistical technologies and problem-solving approaches (Fisher, Nair 2009).

The satisfaction of internal or external customers is a central goal of the TQM. Customers are satisfied when their expectations regarding the service or product have been met or exceeded. Quality, in turn, has multiple dimensions in the mind of customers:

- Conformance to Specifications
- Value
- Fitness for Use
- Support
- Psychological Impressions

Employee involvement includes changing organization culture and encouraging teamwork. The awareness of importance of quality in all employees is a challenge for management. With TQM, everyone is expected to contribute to the overall improvement of quality. It involves all the functions that relate to a service or product (Krajewski, Ritzman & Malhotra 2007).

Continuous improvement is a principle of continually seeking ways to improve processes, based on a Japanese concept called kaizen. The foundation is the idea that virtually any aspect of a process can be continuously improved and the people associated with a process are the best to identify the changes needed (Krajewski, Ritzman & Malhotra 2007).

Plan-do-check-act cycle, also known as Demign Wheel, is a part of the Total Quality Management Philosophy and the continuous improvement principle. The cycle contains four steps, as seen in the figure 3 (Krajewski, Ritzman & Malhotra 2007).

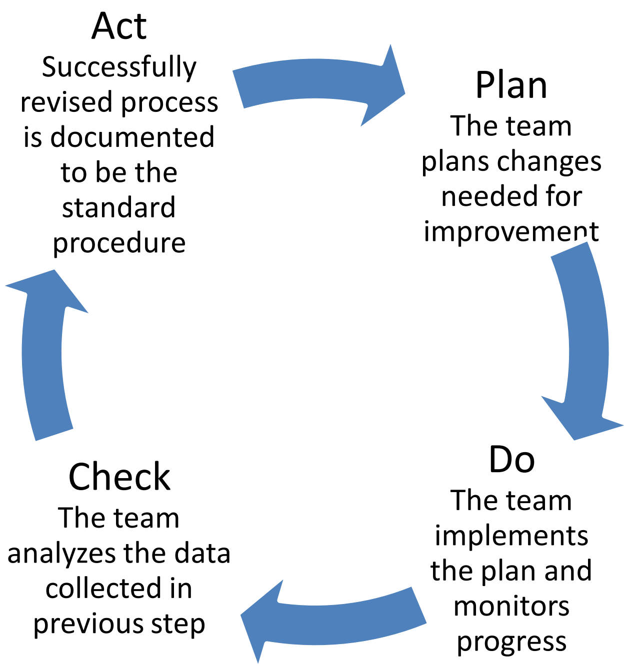

Figure 3: Deming Cycle, adapted from (Krajewski, Ritzman & Malhotra 2007)

Statistical Process Control

Statistical Process Control (SPC) is an application of statistical methods and techniques to assess the process and determine if it's delivering what the customer wants (Krajewski, Ritzman & Malhotra 2007). SPC conducts tools called control charts to detect defectives and to assess the processes. Examples of controls charts can be seen in figure 4.

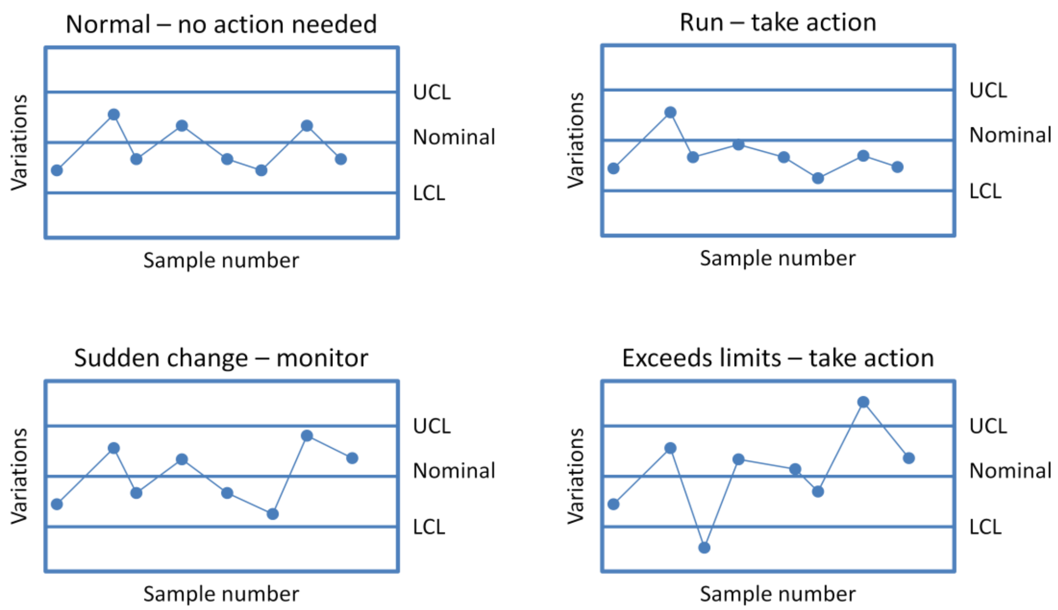

Figure 4: Control chart examples, adapted from (Krajewski, Ritzman & Malhotra 2007)

SPC is based on the analysis of the output variances. Those performance measurements can be collected either from product variables, such as weight, volume or time, or from product attributes, that are easily counted characteristics of the product. Measurements could be collected also from other than manufacturing processes either way (Krajewski, Ritzman & Malhotra 2007).

Control chart has three lines: in the middle there is the nominal value, which is surrounded by control limits based on the sampling distribution of the quality measure. A sample statistics falling between Upper Control Limit (UCL) and Lower Control Limit (LCL) indicates that the process is exhibiting common causes of variation (Krajewski, Ritzman & Malhotra 2007).

Six Sigma

Six Sigma is another popular approach to quality management. It is driven by a careful understanding of customer needs and relies heavily on the principles and tools of TQM, but is more formal. It is described as a highly disciplined and statistically based approach for removing defects and minimizing variability from products, processes and transactions (Fisher, Nair 2009, Ching-Chow Yang 2009, Todorut, Cîrn & Niculescu 2009).

The goal of Six Sigma is value creation through quality improvement. Successful implementation builds upon a number of quality management prerequisites, such as existing quality culture and certain level of quality maturity (van Iwaarden et al. 2008).

The name of the approach relates to the goal of minimal rates of defective output even the shift of 1.5 standard deviations in its average. Under this assumption, the process with six-sigma quality would produce 3.4 defects per million products over the long time period. Six Sigma was rooted originally in manufacturing processes but the approach has also been implemented successfully in other processes, such as sales and customer service. The definition of defect depends on the process but the concept of eliminating defects remains the same (Krajewski, Ritzman & Malhotra 2007).

ISO Standards

The ISO 9000 Standard supports and standardizes the process documentation of a quality program in organizations. This documentation is a description of how the company provides quality and is especially important in international trade. Certified companies are listed in a directory where potential customer can see the level of certification. However, standard family does not say anything about the actual quality of the product (Krajewski, Ritzman & Malhotra 2007).

ISO 9000 family consists of four documents listed below

- ISO 9000 is and overview document, which provides fundamentals of quality management systems and specifies the terminology
- ISO 9001 specifies requirements for a quality management system for demonstrating company’s ability to provide products that fulfill customer needs
- ISO 9004 contains guidelines that consider both the effectiveness and efficiency
- ISO 19011 provides guidance on auditing quality and environmental management systems

Together the standard family forms a coherent set of standards that have been developed to assist organizations to implement and operate effective quality management systems facilitating mutual understanding in national and international trade (Krajewski, Ritzman & Malhotra 2007, Suomen Standardoisoimisliitto 2008, International Standards Office 2000a, International Standards Office 2000b).

2.1.5. Integration of quality management in the organization

Yang presented in his recent article how businesses are increasingly using a variety of management systems, methodologies and tools in response to pressures from global competition. One common characteristic for those is that the quality is one of the main focuses, whereas the approach to the quality of various systems is different. And the quality is seen as its widest definition. More that the narrow measure of product, it encompasses all the ways in which company meets the expectations of its customers and other stakeholders (Ching-Chow Yang 2009).

Yang and Yeh noted that if companies decide to implement different management tools simultaneously without proper integration and guidance, the employees could face confused demands. The resolution they suggested was to integrate the balanced scorecard and other management tools to the same framework (Ching-Chow Yang, Tsu-Ming Yeh 2009).

The literature review by Yang suggested that it is both desirable and possible to integrate an existing TQM system with other relevant management systems and programs to develop a holistic quality management system. The same result is valid for Balanced Scorecard that should be integrated with existing measurement system during its implementation. TQM programs are based on the assessment of real outcomes of different processes. Versatile data collection from different sources requires a capable IT system (Ching-Chow Yang 2009).

Kandi and Sa in turn claimed that the BSC can be improved by integrating total quality management principles and critical success factors. Based on their literature review, a significant part of the measurements analysis in the TQM could be derived from Balanced Scorecard process measurement indicators. The source for customer-related measures could also be the Balanced Scorecard system. The continuous improvement of the quality system could be based on the strategic goals of the Balanced Scorecard (Kanji, Sá 2002).

The connection between Customer Relationship Management (CRM) and Total Quality Management was defined by Su, Tsai and Hsu in their recent article. They provided and integrated model for main activities in CRM in the ISO 9000 Quality Management System framework. The model contains five components (Chun-Hsien Su, Tsai & Chu-Ling Hsu 2010):

1. Customer related processes containing inputs and outputs from customers
2. Management responsibility containing CRM culture and strategy activities
3. Resource management containing human resource and infrastructure and work environment issues
4. Product and service realization consisting of production and service provision and
5. Measurement, analysis and improvement component that consists of monitoring and measuring processes and improvement.

Besides improving quality, the implementation of different management systems and quality models and certificates in a variety of firms have also enhanced market share, customer satisfaction, profit, business processes and supplier performance and competitiveness (Ching-Chow Yang 2009).

2.2. Balanced Scorecard

The chapter 2.2 describes the theory of the Balanced Scorecard concept. The first section is about the core idea, how measurement should be done from multiple perspectives to achieve a balanced view. Second section describes the history and recent development of the concept. Different applications are discussed in detail before introducing strengths and challenges. Chapter ends with positioning the Balanced Scorecard between the organizations various systems.

2.2.1. Measures That Drive Performance – The Balanced Scorecard

Kaplan and Norton describe the Balanced Scorecard as a framework that translates objectives into a coherent set of performance parameters (Kaplan, Norton 1993). The scorecard differs from traditional measures in several ways: its measures are based on a company's strategic objectives and competitive demands and thus it helps focus on the vision. The scorecard could be used as the cornerstone of a company's current and future success. It balances the measures between four different viewpoints and reveals potential trade-offs. Lastly, it can serve as the focal point for the company's efforts by communicating and defining priorities around the organization (Kaplan, Norton 1993).

The Balanced scorecard contains measures from four different perspectives seen in the figure 5. By combining traditional financial measures with customer perspective, internal business processes, and learning and growth perspectives, it gives information both on past performance and predictions of the development in the future. Each perspective describes objectives to achieve and measures to estimate the progress towards objectives. Measures have targets which in turn need to be put into action driving towards those targets (Kaplan, Norton 1996).

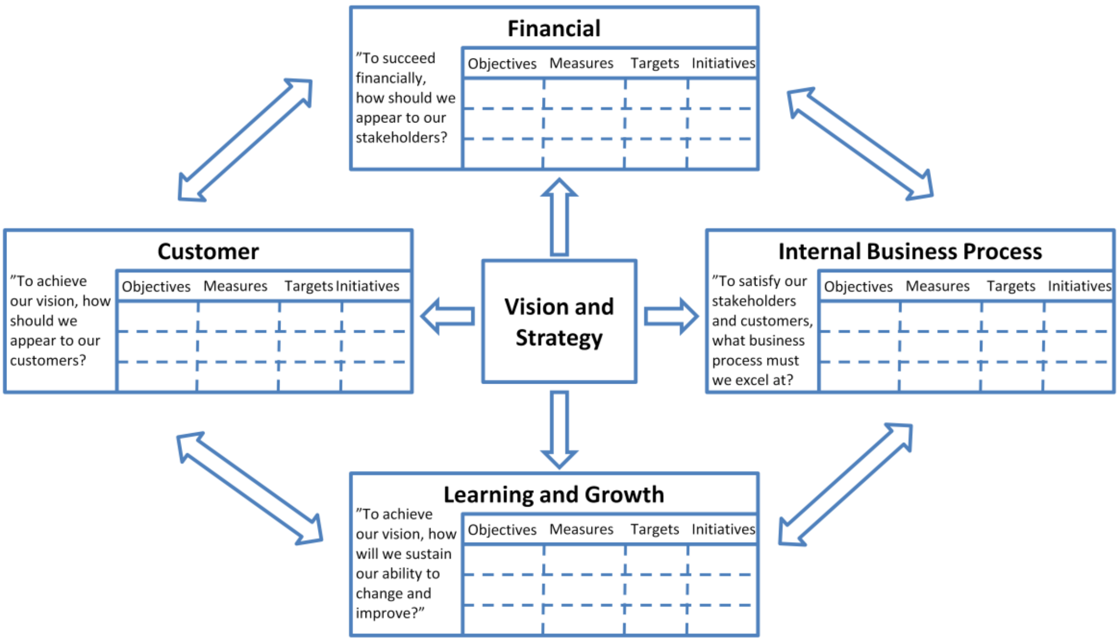

Figure 5: Balanced Scorecard adapted from the article "Using the Balanced Scorecard as a Strategic Management System" (Kaplan, Norton 1996)

The financial perspective is the first or last part of the scorecard. It ties everything together and shows how the company approaches its shareholders. The customer perspective tells a company how it is performing from its customers' point of view. Kaplan and Norton divide customer's concerns into four general categories: time, quality, performance and service, and cost. To implement the scorecard companies should articulate goals for those main categories.

The Internal Business Perspective gives managers the ability to analyze the business processes that have the greatest impact on customer experience. Companies need to identify their core competencies and critical technologies and follow the cycle time, quality, employee skills and productivity. The Innovation and Learning Perspective is the central area for companies' ability to grow by finding new markets and developing new products. It measures company's ability to learn, innovate and improve.

According to the article "The strategy map: guide to aligning intangible assets" (Kaplan, Norton 2004b), balanced scorecard offers a framework for describing strategies for creating value from both tangible and intangible assets. Financial and customer perspectives of the scorecard contain lagging measures and measures for internal process are leading estimates for those perspectives. Improvements in learning and growth measures are in turn lead indicators for all other perspectives. Balanced scorecard allows linking measures from all four different perspectives to be translated into a series of cause-and-effect linkages (Kaplan, Norton 2004b). Figure 6 shows key concepts related to Balanced Scorecard.

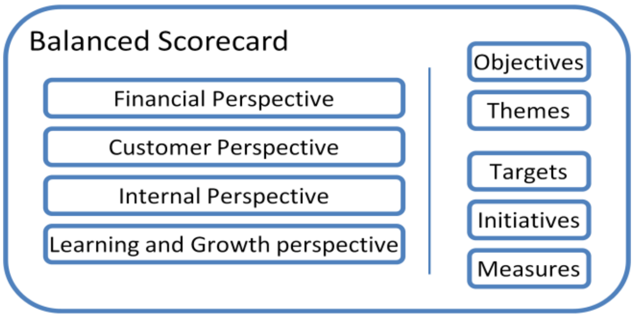

Figure 6: Key Concepts of the Balanced Scorecard

Implementation of the scorecard

Examples of the balanced scorecard implementations in selected companies in the article "Putting balanced scorecard to work" (Kaplan, Norton 1993) shows the required steps and potential challenges for the implementation in those companies. The main process is simple: The starting point for the project is the vision of the company and the strategy for its implementation. Strategy needs to have objectives that are then developed further to the balanced scorecard.

Bukh and Malmi present three different techniques for cascading scorecards around the organization in their study (Bukh, Malmi 2005). The easiest way is if those same measures from the Strategic Business Unit could be used in next levels too. If similar measures can't be used for different organization levels, the second possibility is to create a relationship between measures and what drives measures on different layers.

The third possibility is to link strategies of different layers together. Different business units identify the measures they have impact on the Strategic Business Units strategy map. Based on this information they create own strategies and measures. This same logic can be applied to supporting functions in the organization. Kaplan and Norton suggested similar process for creating personal scorecards (Kaplan, Norton 1996).

2.2.2. From performance measures to a strategic management system

The development process of the Balanced Scorecard concept started in the beginning on 1990's and is still going strong, as seen in the figure 7. Balanced measuring has grown up to become an integral part of a strategic management system.

Robert Kaplan and David Norton presented four sets of parameters for measuring as results from their research project with 12 companies in the Harvard Business Review in 1992 (Kaplan, Norton 1992). Traditional financial performance measures could give misleading information about companies' important innovations and continuous improvement programs. However, a well designed financial reporting and controlling system would follow and highlight the difference between inputs and output development and reveal the link between operational efficiency and financial success. Still, better quality has to be turned into superior customer satisfaction and stronger sales and Balanced Scorecard was developed for connecting these requirements. Financial measures tell the results of action taken and operational measures of customer satisfaction, internal processes and organization's innovation and learning activities give estimates for future development.

In the beginning, the scorecard was tested with few companies. Their early experiences demonstrated that the new set of measures met several needs by bringing together many different elements of the company's actions. At the same time it prevented the company from making poor decisions. Different viewpoints guarantee that improvement in one area is not achieved at the expense of another. And because all the measures are derived from the company's strategy, each action should be measured by the scorecard be and linked to the strategy.

Several years after the first article, Kaplan and Norton collected experiences from different companies implementing scorecard (Kaplan, Norton 1996). Many of those early adapters had good but quite narrow results from using it as an improvement to their performance management system. Companies used the scorecard for much more than measurement; it was more like a strategic measurement and management system supporting a company's core process development. Based on these experiences, Kaplan and Norton suggested four new management processes for linking long-term strategic objectives with short-term actions.

As a next step in the history, Kaplan and Norton presented a tool called Strategy maps and a standard template for it in 2000 (Kaplan, Norton 2000). The tool is a visual representation of organization's strategy's linked components in the four perspectives of Balanced Scorecard. It helps companies to communicate their strategy and implement it throughout their entire organization. The article proposed that the customer value proposition is the core of any business strategy.

Kaplan and Norton continue their work with balanced scorecard in the article "Measuring the Strategic Readiness of Intangible assets" (Kaplan, Norton 2004b). The article is focused on intangible assets described in Balanced Scorecard's Learning and Growth perspective that is the foundation of each organization's strategy. Because those assets are hard for competitors to imitate, they are a great source for competitive advantage. It can also be seen how they determine the performance of the critical internal processes. Measures of intangible assets can be seen as the ultimate lead measure.

The value of intangible assets is hard to estimate, because it depends on the context of the company and its processes. Intangible assets need to be combined with other assets and often they create financial performance only through complex cause and effect relations. The focus of the next article “Strategy Maps – cover story” is on describing the internal perspective, which is grouped into four new clusters: Operations management, Customer relationships management, Innovation, and Regulatory and social (Kaplan, Norton 2004c).

Two years later Kaplan and Norton present the possibility of using the management system based on balanced scorecard for managing the actual organization instead of organization structure change in the article “How to implement a new strategy without disturbing your organization” (Kaplan, Norton 2006). The main idea is to choose a structure that works without major conflicts and design a strategic system to align company’s strategy with its structure. The strategic theme, instead of the structure, could be seen as a connecting force for the organization.

The article “Mastering the management system” describes the management system, where the Balanced Scorecard framework can be used (Kaplan, Norton 2008). According to Kaplan and Norton’s experience, breakdowns in a company’s management system are the reasons why a company underperforms, not manager’s lack of ability or effort. Management system can be defined as an integrated set of processes and tools that a company uses to develop its strategy translate it into operational actions, and monitor and improve the effectiveness of both. They continue that companies can avoid such shortfalls by creating a closed loop managements system.

One of the last steps was year 2009, when Robert Kaplan discusses the organization’s need for executives, who can both lead and manage (Kaplan 2009). He shows how the success in Balanced Scorecard lies in its ability to provide a formal, systematic approach for simultaneous leadership and management.

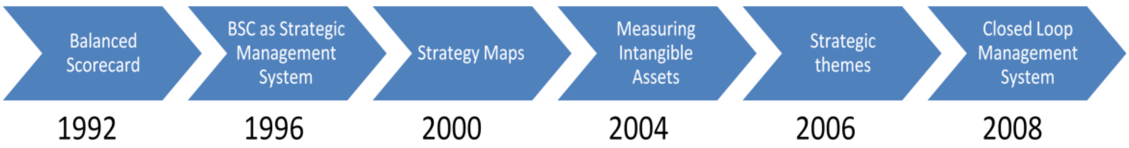

Figure 7: The history of the Balanced Scorecard

2.2.3. Mapping organization’s objectives with Strategy maps

Strategy maps and a standard template help companies to communicate their strategy and processes into the organization by generating a visual representation of the linked components. It provides possibilities for linking an organization’s intangible asset to its strategy (Kaplan, Norton 2004c). Robert Kaplan and David Norton presented it in the year 2000, based on their work with Balanced Scorecard (Kaplan, Norton 2000).

The Strategy Map helps in the challenge of converting the strategic vision into tactical everyday actions. It gives employees a clear picture of how their jobs are linked to the overall objectives of the organization, and provide a visual representation of critical relationships. It uncovers potential issues and possibilities and exposes potential gaps in strategies. Kaplan and Norton pinpointed the lack of connection between internal process measures and a customer value proposition, missing objectives for innovation, and vague objectives for employee skills and motivation and for the role of information technology as examples of crucial problems they frequently find (Kaplan, Norton 2000).

Managers can use the strategic maps as a basis for a management system development that specifies cause-and-effect relationships and makes them explicit and testable. Maps align all organizational units and resources for testing hypothesis and to use results to adapt the strategy. Compared to ad hoc performance index scorecards that are not fully linked with the vision, strategy maps illustrate from a larger perspective how both tangible and intangible resources are converted into tangible outcomes and thus help organization to avoid costly decisions.

Strategy maps are based on five principles (Kaplan, Norton 2004b):

1. Strategy balances contradictory forces: Investing in intangible assets for long-term revenue growth usually conflicts with cutting costs for short-term financial performance
2. Strategy is based on a differentiated customer value
3. Value is created through internal business processes
4. Strategy consists of simultaneous, complementary themes
5. Strategic alignment determines the value of intangible assets: Human capital, information capital and organization capital have to be aligned and integrated with enterprise strategy.

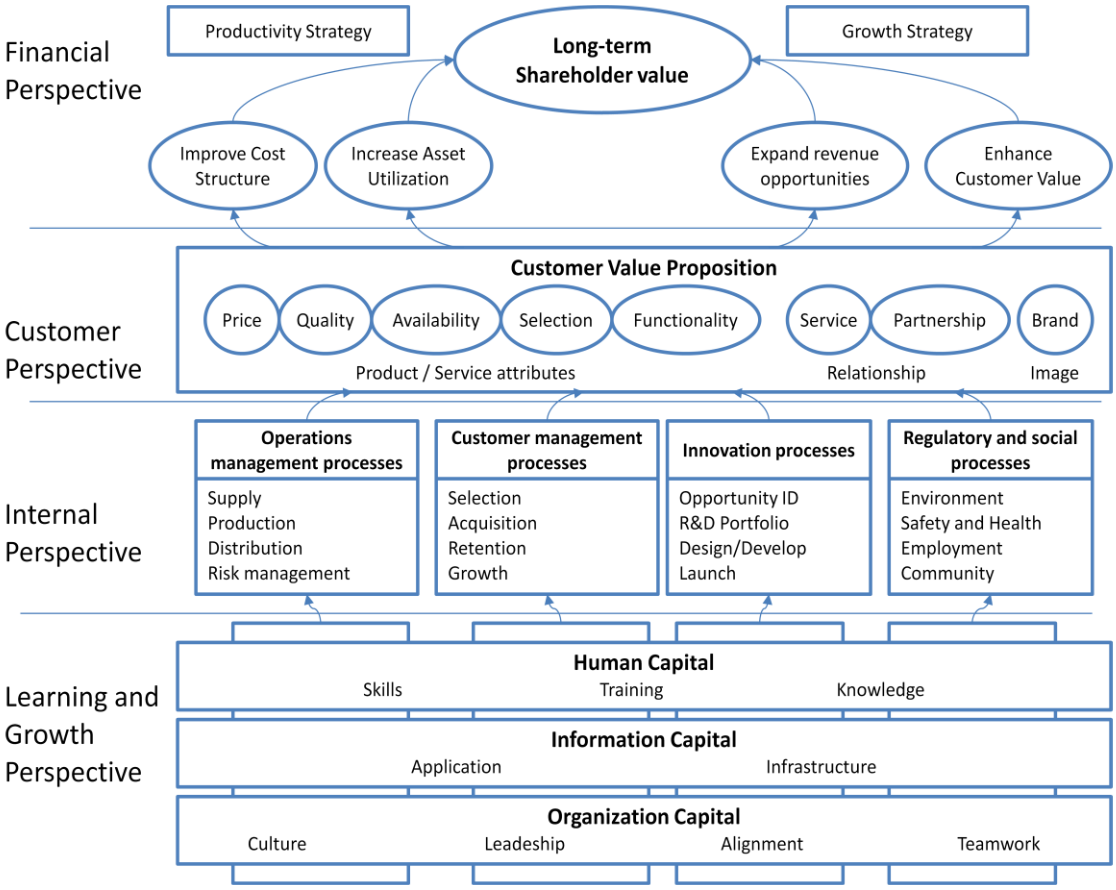

Figure 8: General template for Strategy Maps, adapted from the article “The strategy map: guide to aligning intangible assets” (Kaplan, Norton 2004b)

The general template as seen in the figure 8 could be used as a checklist for finding missing elements. It illustrates organizations’ objectives, initiatives and targets, its measures to value performance and the links between those from Balanced Scorecard’s four different perspectives.

Financial Perspective

Norton and Kaplan describe how financial perspective of the strategy maps can be divided into two strategies containing two components. Revenue growth strategy could be implemented either by acquiring new customers or by increasing value to existing customers. Productivity strategy is achieved by either reducing direct and indirect costs or by using assets more efficiently.

One of the benefits of the strategy maps is to highlight the revenue growth opportunity instead of reducing costs only. Developing the first layer of the strategy map guides companies to deal with the tension between revenue growth and productivity. The overall financial objective for the company has to be to sustain growth in shareholder value (Kaplan, Norton 2000).

Customer value proposition

Customer perspective of the strategy maps contains customer value proposition, which can be seen as the core of any business strategy. The focus is on knowing the customers and markets and adjusting the strategy based on this information, objectives of the strategy should not be general or undifferentiated. Customer value proposition is often chosen among three parameters: operational excellence, customer intimacy or product leadership, shown in the figure 9.

In operational excellence strategy the company needs to focus on competitive pricing, product quality, speedy order fulfillment and on-time delivery. Quality of customer relationships, exceptional service and completeness of the solutions are essential in customer intimacy strategy. Product leadership strategy stresses on product functionality, quality, features and overall performance (Kaplan, Norton 2000). Later on, Kaplan and Norton presented one more generic customer value proposition; lock-in strategy. That arises when companies creates high switching costs for their customers. In such case both customer and producer want to benefit from the large network of other value adding companies (Kaplan, Norton 2004c)

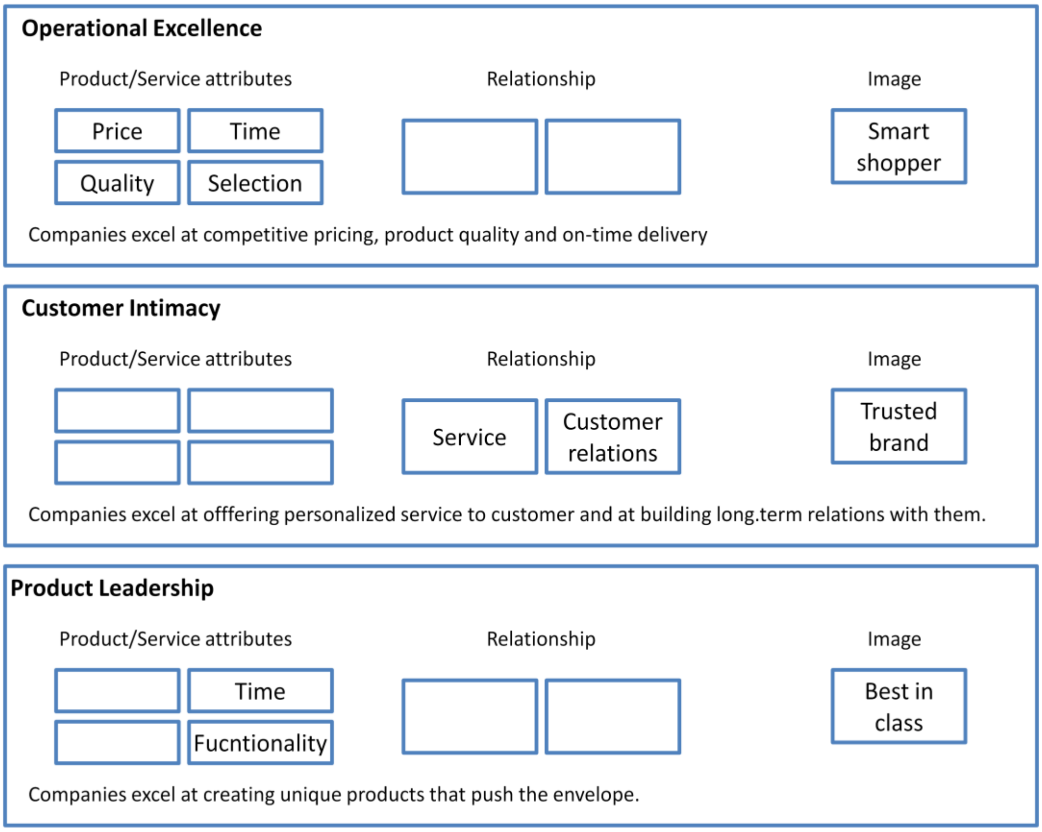

Figure 9: Three general Customer value propositions, adapted from (Kaplan, Norton 2000)

Critical internal processes

Internal process perspective describes how organization will achieve the differentiated value proposition for customers and its financial objectives (Kaplan, Norton 2000). That perspective can be grouped into four clusters presented in the figure 10: Operations management, Customer management, Innovation and Regulatory and social processes (Kaplan, Norton 2004c).

Operations management processes are the basic daily processes, which produce existing products and services to current customers. Developing supplier relationships, producing products and services, distributing to customers and managing risks all are a part of operational management (Kaplan, Norton 2004c).

Customer management processes create and strengthen relationships with targeted customers. These processes are about selecting, acquiring, retaining and growing customer relationships. Customer selection is about identifying the target populations where company’s customer value proposition would be most desirable. Customer acquisition contains for example lead generation, potential customer communication and closing the sales. Customer retention is achieved with good service and responsiveness to customer request and results in customer loyalty. Growing a customer’s business with the company involves managing the relationship effectively, cross-checking multiple products and services and becoming known as a trusted adviser and supplier (Kaplan, Norton 2004c).

Innovation processes develop new products and services. Following processes belongs to this cluster: identify new opportunities, manage the research and development portfolio, design and develop new products and services, and bring new ideas to market.

Regulatory and social processes help organizations to continually develop a reputation of good employer in every area they are operating. These processes consist of environment, health and safety, employment practices, and community investment dimensions (Kaplan, Norton 2004c)

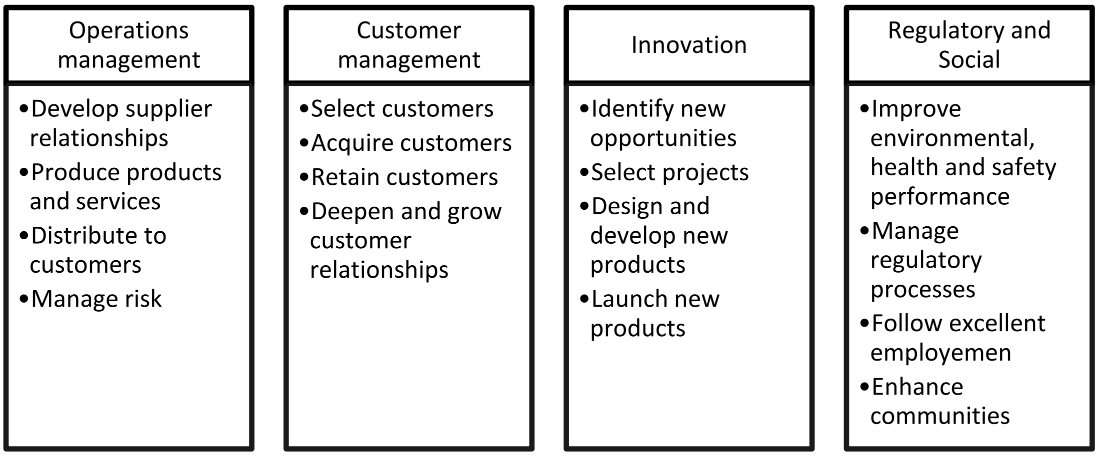

Figure 10: Four different critical internal process, adapted from (Kaplan, Norton 2004c)

Learning and growth perspective

Learning and growth perspective is the foundation for any strategy maps. It determines how a company will achieve the requirements from critical internal processes by defining core competencies and skills, technologies and organization culture needed (Kaplan, Norton 2000).

Tangible assets were the foundation for the economy in the Industrial Age. However, in the Information age, businesses must increasingly create and deploy intangible assets. These determine the performance of critical internal processes. The value of intangible assets is hard to estimate. It depends on the context of the company and its organizational processes and is often created through complex cause and effect relations. Measures of intangible assets can be seen as the ultimate lead measure (Kaplan, Norton 2004b).

Kaplan and Norton specified and presented a tool and concept called strategic readiness for measuring company's intangible assets (Kaplan, Norton 2004b). The measurement has to be done by following the cause-and-effect relationships. For example, a company can measure whether its workforce is properly trained, and motivated to achieve a specified goal. Balanced Scorecard collects key performance indexes from all over the organization in a balanced way and strategy maps are developed on top of the balanced scorecard for linking those assets into shareholder value creation. Strategic readiness continues this path and it can be used for measuring intangible assets. The basic idea of estimation is to compare the current situation with different intangible assets needed to support critical internal processes (Kaplan, Norton 2004b).

Intangible assets can be divided into three different categories as seen in the figure 11. Human capital describes knowledge and potentials of employees. Information capital contains company's databases, information system and technology infrastructure. Third category is Organization capital, that groups company's culture, leadership, the alignment of people with strategic goals and employee's ability to share knowledge.

Strategic readiness can be calculated for each category and based on those results the overall strategic readiness of intangible assets can be estimated (Kaplan, Norton 2004b).

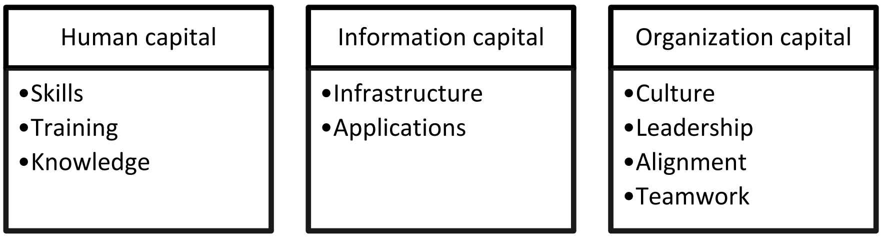

Figure 11: Dimensions for estimating the intangible assets, adapted from (Kaplan, Norton 2004b)

Human Capital readiness

Estimating human capital readiness is straight forward. Measure shows the difference between the skills employees have and those they should have for performing critical internal processes. The process for creating the estimate starts with indentifying the positions in which employees with right skills and knowledge have the greatest impacts on organization's critical processes. Those job positions are called strategic job families (Kaplan, Norton 2004b).

The second step is to specify the skills that strategic job families need. After the required skills are defined, organization can find the difference between current situation and requirements. This gap measures organization's Human capital readiness (Kaplan, Norton 2004b).

Information capital readiness

Strategic readiness of Information capital measures how well the company's IT-portfolio of infrastructure and application supports critical internal processes. The estimation begins when organization specifies what kind of applications critical processes need. The next step is to find the required infrastructure for needed applications. Once these requirements are specified, the current system can be assessed. Each system gets a score and these results can be aggregated for different critical processes. This kind of aggregated report is an excellent tool for monitoring the portfolio of Information capital development (Kaplan, Norton 2004b).

More quantitative data can be gathered from different information systems. There could be user surveys for measuring the current status of usage and financial analyses to determine the operating and maintenance costs of each application. With such profile the company can manage information capital as any set of tangible assets (Kaplan, Norton 2004b).

Organization capital readiness

Kaplan and Norton divide Organization Capital readiness measurement into four different categories in their article. These measures – culture, leadership, alignment, and teamwork and knowledge sharing – describe how well the company can sustain the organization change agenda associated with its strategy. Each of four categories needs to be estimated and then the overall measure can be aggregated (Kaplan, Norton 2004b).

Culture has two different perspectives, base culture and the climate. Base culture describes the shared meanings, assumptions and values that all employees share. Climate is more about perceptions, motivation and behavior, that employees have of their existing system. Assessment of cultural readiness is mostly done with employee surveys. Surveying the climate is such an easy task compared with getting results from base culture but good tools have been developed. One important point while developing surveys is that some variation in the culture is needed and desirable. For example culture in research and development function might be different than culture in manufacturing unit (Kaplan, Norton 2004b).

Second category of organization capital is leadership. Organization should identify the leadership competency model for estimating the readiness of leadership. The assessment is usually done through employee surveys. The third category is alignment. It measures employees understanding of how their personal roles support the organization's strategy and how well the vision and objectives are shared. Employee surveys have a central role also in assessing alignment (Kaplan, Norton 2004b).

The last dimension of Organization capital is the teamwork and knowledge sharing. This is important for companies because best practices and good ideas should be used more than once. Implementation and measuring of this is challenging. Team work around the organization is the key for knowledge sharing and company should highlight both team working and knowledge sharing in its scorecard (Kaplan, Norton 2004b).

The overview of organization readiness is done by aggregating information gathered from various assessments in different perspectives. This overview shows how valuable the human capital is, how well information capital supports critical processes and what the organizations' potential is for motivating its employees to achieve shared objectives (Kaplan, Norton 2004b).

Connecting Strategic Maps and the Balanced Scorecard:

As seen before, Strategic map describes the logic of the strategy. It shows the objectives of customer value proposition for critical internal processes and the intangible assets needed. Moving forward, the Balanced Scorecard translates the objectives in strategy map into tangible measures and targets (Kaplan, Norton 2000). An example can be seen in the figure 12.

Some examples of measures to use are presented in various articles by Kaplan and Norton. They tell that financial measures typically refer to profitability: economic value added, operating income and return on investment. For customer perspective, common measures are customer satisfaction, retention, acquisition, profitability, market share and account share in targeted segments (Kaplan, Norton 2004c). Measures for critical internal processes and the learning and innovation perspective were presented in details in sections before.

Outcome measures for customer and financial perspectives can be viewed as cause-and-effect relationships too. For example, customer satisfaction generally leads to customer retention, which in turn leads to acquisition of new customers through word of mouth. Company can increase their account share by retaining customers. Combining better loyalty of old customers and acquired new customers the market share should raise (Kaplan, Norton 2004c).

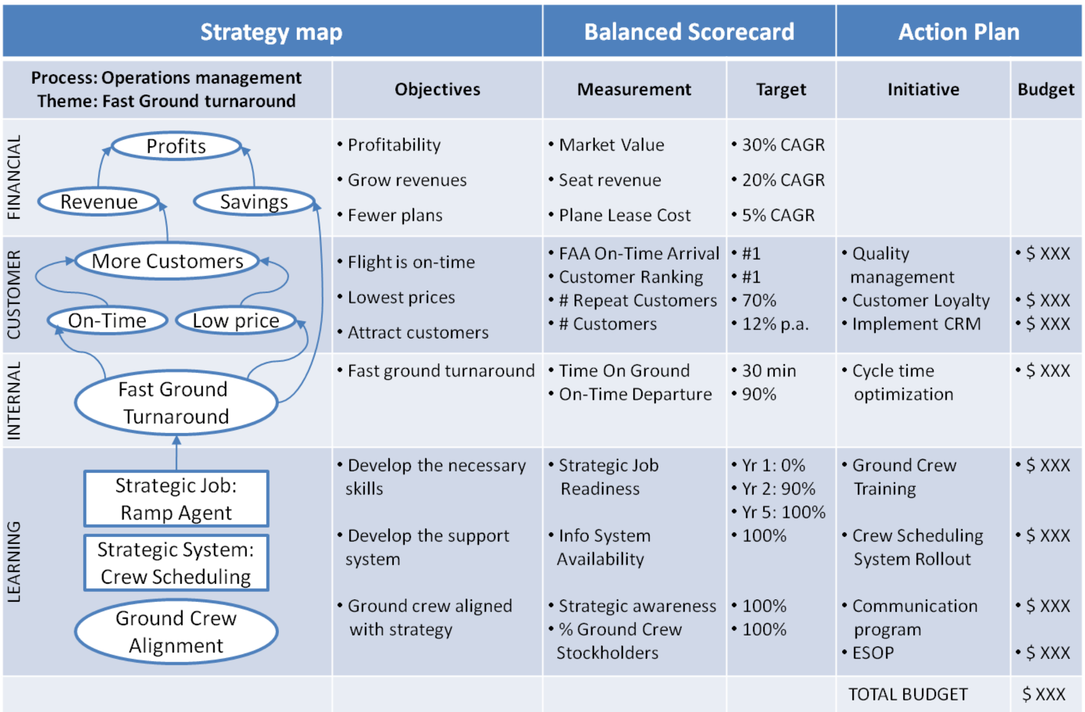

Figure 12: An example of strategy maps' and balanced scorecard's combination for low-cost airline company adapted from article "Strategy Maps. (cover story)" (Kaplan, Norton 2004c)

One important concept is the Strategic initiative. It is an action program that will enable the targets for all the measures to be achieved. A bunch of strategic initiatives can be integrated into a Strategic theme instead of standalone programs. Each strategic theme represents a self-contained business case and has an important in the strategic management approach as described in next chapter (Kaplan, Norton 2004c).

A strategic theme has a central role in communicating company priorities in the whole organization. Each theme consists of a vertical chain of cause-and-effect relationships linking objectives, measures and initiatives that span the four perspectives of the balanced scorecard. Each objective and measure in the theme is supported by one or more strategic initiatives, which in turn defines the resources and actions required implementing the strategic theme. Themes are effectively the tools that form the heart of the management system. They describe the virtual organization in which decentralized units works towards achieving their own strategy while simultaneously contributing to corporate priorities (Kaplan, Norton 2006).

2.2.4. Using Balanced Scorecard as a Strategic Management System

The history of organization structure is specified by achieving competitive advantages with economics of scale. The beginning of the history focused on centralizing key functions. Global competition forced companies to react to situations and flexibility to local conditions was achieved by creating business units around products and geographic markets. Matrix organization was an answer for getting economics of scale and flexibility but those were hard to coordinate. The business process reengineering introduced a new model, in which the company is organized around its various processes. Recently, networked organizations have been presented (Kaplan, Norton 2006).

Instead of changing organizational structure, Kaplan and Norton propose that companies should choose a structure that works without major conflicts and design a strategic management system to align the company's strategy with its structure. Management system can be defined as an integrated set of processes and tools that a company uses to develop its strategy, translate it into operational actions, and monitor and improve the effectiveness of both. Historically, most companies have relied on financial management system. The framework that balanced scorecard based approach suggests, links a company's strategy to its intangible assets in a form of strategy maps and monitors and implements it with the Balanced Scorecard (Kaplan, Norton 2006).

A Strategic management system

Kaplan and Norton specified five principles for helping executives to lead and manage the organization and for achieving remarkable performance with the Balanced Scorecard (Kaplan, Norton 2001b).

1. Translate strategy into operational terms. The translation can be done with Balances Scorecards and strategy maps.
2. Align organization to strategy. Cascading the strategy down to decentralized divisions, business units and support functions contains both managing and leadership dimensions. The cascading process highlights the leadership characteristics while encouraging each operating unit to define its own strategy. The most remarkable possibilities occur in support functions and shared services, when cascading process allows them to transform from functionally oriented cost centers into strategic partners of line operating units.
3. Make strategy everyone's job. In this principle, three processes must be accomplished. Those are communicating the strategy, aligning personal objectives with the strategy and linking variable pay to scorecard performance. Effective, visionary communication can help leaders to align and motivate their people.
4. Make strategy a continual process requires executives to integrate strategy with planning and budgeting, introduce new reporting systems and lead a new meeting.
5. Mobilize change through executive leadership. The last principle is about communicating the strategy, establishing new systems and reinforcing the strategy with discussions.

Balanced scorecard allows managers to introduce four new management processes seen in the figure 13 for linking the long term strategy and short term tactical actions (Kaplan, Norton 1996).

The first process helps managers to clarify the vision and gain consensus among other managers. It is called translating the vision. Second new process is called Communication and Linking. It is used for communicating and educating the scorecard among the organization, for setting goals and objectives, and for linking rewards to performance measures (Kaplan, Norton 1996).

The third new process is for business planning. During that process targets are defined, initiatives aligned with the strategy, resources are allocated and milestones set. The fourth process, feedback and learning, is for articulating the shared vision and supplying strategic feedback. It facilitates strategy review that consists of gathering feedback and making the necessary adjustments. Instead of having quarterly meetings for revising the budget allows the balanced scorecard corporate and different business unit executives to use their periodic review sessions to validate the unit's strategy (Kaplan, Norton 1996).

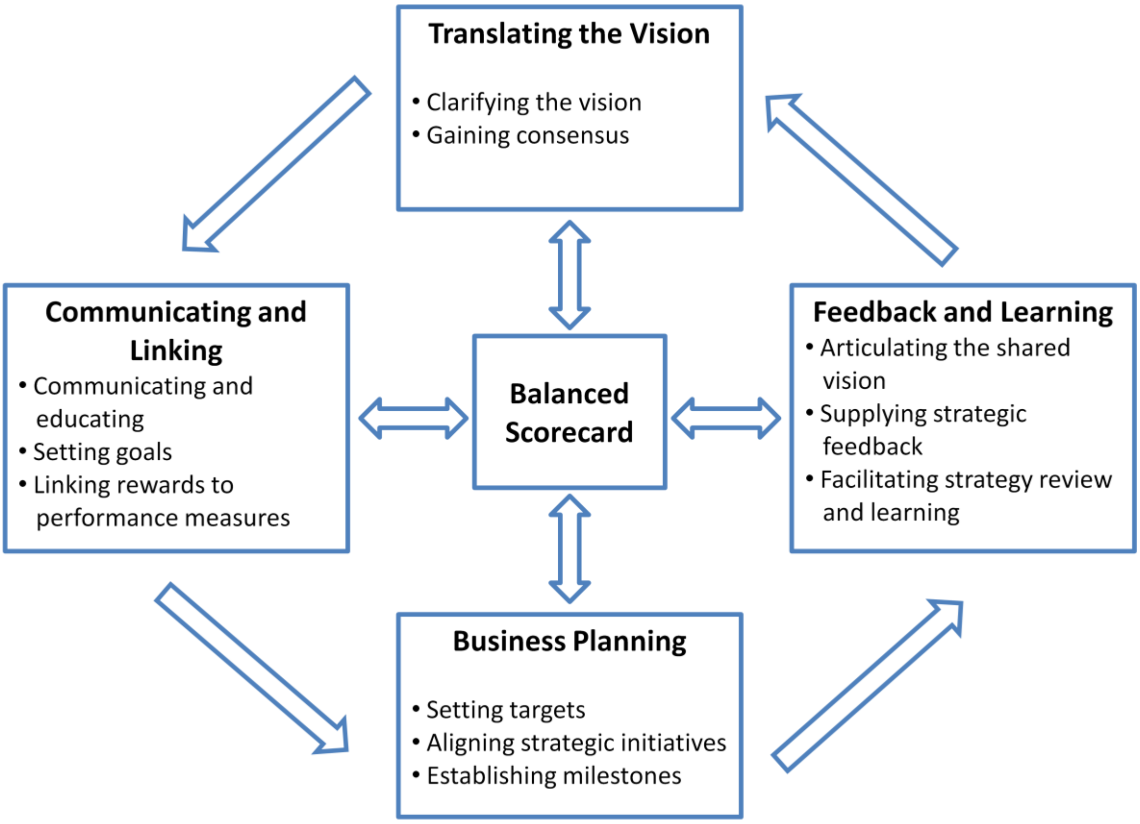

Figure 13: Four management processes adapted from article "Using Balanced Scorecard as a Strategic Measurement System" (Kaplan, Norton 1996)

The Closed Loop Management System

Kaplan and Norton developed the simple idea of four management processes around the balanced scorecard and created a template for the closed loop management system, where they proposed commonly known "best of breed" tools from different management experts for each phases. The system consists of five stages presented in the figure 14, beginning with strategy development, going through translation of strategy and its implementation and followed by monitoring, ending at assessing the strategy based on reports and experiences gathered during the loop (Kaplan, Norton 2008).

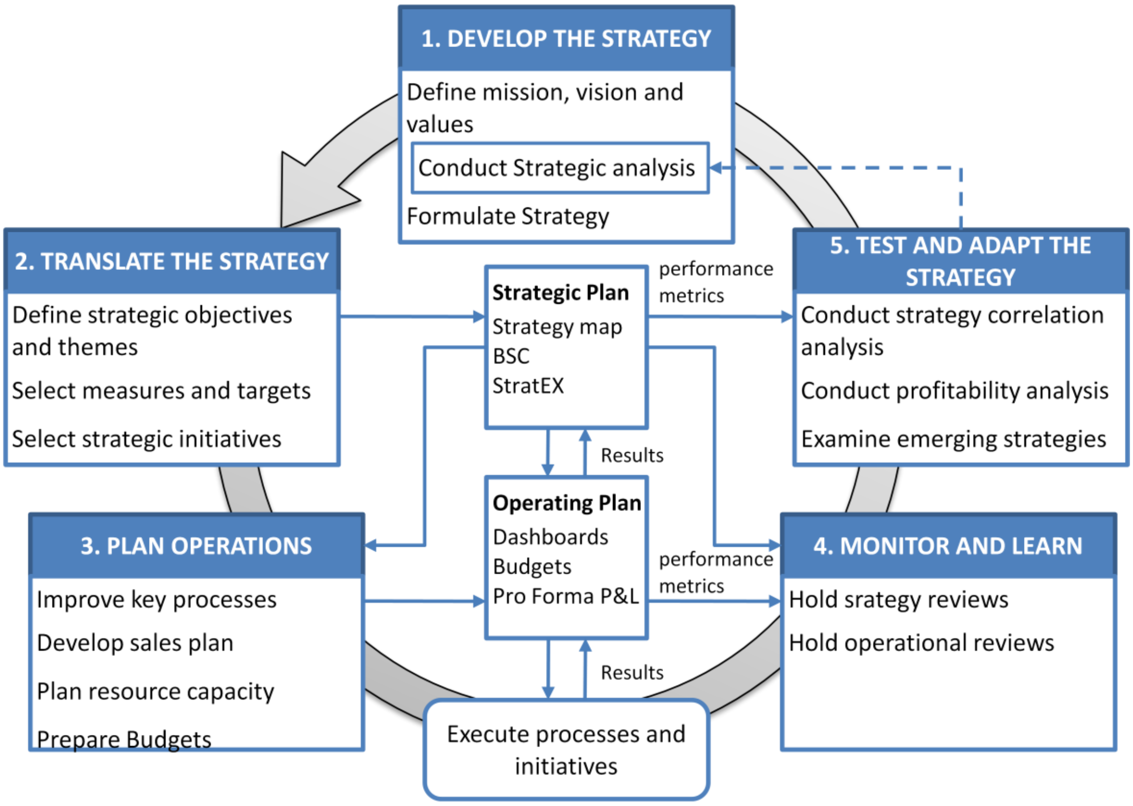

Figure 14: A closed loop management system (Kaplan, Norton 2008)

The first stage is about developing the strategy. The agenda of the development meetings should contain three different dimensions. The first dimension gives an answer to the question of what business the company is in and why. The result should contain a definition for mission, vision and values. The second dimension describes the key issues the company faces in its business, it gives the strategic analysis of company's external and internal situation. The last dimension is for formulating the strategy, telling how the company best competes (Kaplan, Norton 2008).

The strategy is translated into objectives and measures in the second stage. Translation has three different steps. In the beginning, the Strategy Maps provides a powerful tool for visualizing the strategy as a chain of cause-and-effect relationships among strategic objectives. Norton's and Kaplan's recent research shows, that the map can be simplified by chunking it into three to five strategic themes. Such a theme consists of a distinct set of related objectives. Themes offer two major advantages. First, theme structure allows unit managers to customize each theme to their local conditions, without forgetting organizations over all objectives. Second, vertical themes typically deliver benefits over different time periods (Kaplan, Norton 2008).

Once the strategy map is developed, managers link it to balanced scorecard of performance measures and targets for each strategic objective. Kaplan and Norton have observed that without measuring the process toward an objective it couldn't be managed or improved. The last step in translating the strategy-stage of the closed loop management system is about identifying and selecting portfolios of strategic initiatives supporting to achieve the strategy's objectives (Kaplan, Norton 2008).

A strategic initiative is a project that allocates resources for achieving the objective. Potential problems of stand-alone initiatives can be tackled with portfolios of initiatives targeted on different themes, which in turn need to have a senior executive assigned to lead the theme (Kaplan, Norton 2008).

After translating the strategy, company develops an operational plan that lays out the actions that will accomplish its strategic objectives in the third stage. It starts with setting priorities for process improvement projects and is followed by preparing a detailed sales plan, a resource capacity plan and operating and capital budgets (Kaplan, Norton 2008).

The fourth stage is about monitoring and learning in two different meetings. Monthly strategy- and operational reviews are the foundation for monitoring. The fifth stage closes the loop. Managers meet to assess the performance of the strategy itself and adapt it if necessary. The assessment is made based on profitability analysis, strategy correlation analysis and on considerations of new strategy options (Kaplan, Norton 2008).

2.2.5. Benefits of the Balanced Scorecard

Kaplan and Norton described different benefits of the Balanced Scorecard in their articles. It helps companies measure their performance in a balanced way. Using four different perspectives it gives a picture from lagging and leading indicators at the same time. It reveals taken trade-offs between key success factors and helps balancing between short-term efficiency and long-term growth. Having the balanced scorecard as a cornerstone for management systems supports implementing new strategy for the company (Kaplan, Norton 1993). The strategy maps helps companies to communicate their strategy and objectives around the organization and it is used for estimating their value of intangible assets (Kaplan, Norton 2004a).

Researchers all around have been assessing the benefits of the balanced scorecard system. Lawson, Stratton and Hatch had a questionnaire made in North America with more than 150 organizations (Lawson, Stratton & Hatch 2003). Companies were divided into “benefits” and “no benefits” groups based on their experiences from Balanced Scorecard implementation and the division was used as a starting point for analysis. They highlight most important characteristics that companies had in the scorecard implementation and created five recommendations based on that information.

1) Strategy has to be communicated and employees aligned with it throughout the organization
2) Compensation should be linked with scorecard, based on careful studies
3) Formal ties need to be created between strategic initiatives and personnel
4) Cascading the Balanced Scorecard in the organization needs Pervasive plans
5) Activity Based Costing should be used with Balanced Scorecard

DeBusk and Crabtree presented ambiguous results in their research (DeBusk, Crabtree 2006). 88% of companies that answered a survey believe that Balanced Scorecard has led to improved operating performance. Majority of the companies reported also increased profits and bottom-line financial results. On the other hand, the article collects some consultants’ reports in KMPG showing the overall failure rate of Balances Scorecard implementation is at 70%. The common reasons for failure of the implementation have been breakdowns in the communication and difficulty in translating the strategy into action.

Ashu Sharma presented two central benefits in his article “Implementing Balanced Scorecard for Performance Management”: Balanced Scorecards lets organizations reach their full potential. Good results are created when the whole organization is focusing on the company's strategy. He described that limitations and challenges are related to the measurement selection: implementation depends on subjective opinions on various measures that are based on the company's strategy and industry (Sharma 2009).

2.2.6. Challenges and critique

Challenges with the balanced scorecard have gained much attention in various studies under the last twenty years. There are some general perspectives that can be used for categorizing challenges. One common approach is for assessing problems in the implementation.

Kaplan and Norton discussed these problems in their second article of the concept already in 1993. They showed that the implementation is a long process which needs enough allocated resources. If division managers see the balanced scorecard as a threat limiting and measuring their work, the cascading process around the organization becomes harder. If the Balanced Scorecard is used only for measuring instead for driving strategic change, results could contain the same information already known (Kaplan, Norton 1993). Similar results highlighting the object of the implementation, importance of the organization's culture and the support from management and organizations vision can be found in a great deal of researches, e.g. (Ching-Chow Yang, Tsu-Ming Yeh 2009, Chavan 2009, Roine 2009).

Another approach for challenges relates to measurements. The article "Putting balanced scorecard to work" (Kaplan, Norton 1993) provides information of some challenges the example companies had faced using balanced scorecard. They told that measurement of the core competency dimension in the implementation process is challenging and might need other quantitative measures for supporting it. Moreover, the customer and innovation perspectives are hard to measure.

Peter Brewer has slightly different perspective in his article, focusing on the challenge of the conversion of the strategy to metrics (Brewer 2002). He suggested an idea to take organizational assets – both intangible and tangible – as a starting point and then start analyzing those by explaining how assets interrelate to deliver customer value. After identifying strengths, weaknesses, opportunities and threats, the critical success factories underlying the strategy can be identified. The strategy maps concept developed by Norton and Kaplan a bit later provides similar tools for converting strategy statements.

Critique

Besides studied challenges, the concept has raised also critique. According to Norreklit and her colleagues, the concept of using Balanced Scorecard as a strategic management system has several weaknesses that need to be recognized for its effective usage. They show how Balanced Scorecard makes oversimplification of the company and might detach managers from operations. The relative importance between different measures is hard to find, and poor, easily tampered measures might mislead the strategy. The theory of the management system is persuasive and easy to read, but from rhetorical analysis point of view it is not offering convincing studies about claimed results (Nørreklit 2003, Norreklit, Jacobsen & Mitchell 2008)

The hardest critique has been on the Balanced Scorecard's cause-and-effect relationships. It might be misleading because the relationships between perspectives are rather logical than causal and are lacking timing dimension (Norreklit, Jacobsen & Mitchell 2008, Nørreklit 2000).

Norreklit suggest with her colleagues that pitfalls could be avoided by having an explorative and iterative approach to the measurement system. The system for performance and management customizes to company needs over time, if managers keep assessing and developing the system continuously (Norreklit, Jacobsen & Mitchell 2008). Problems with the causal relationship between dimensions could be enhanced for example with advanced financial accounting concepts. Activity Based Costing (ABC) could be used to allocate revenues and costs for financial measures and create a link between finance and the customer perspective. The gap between strategy expressed in actions taken and the strategy planned could be managed with two interrelated procedures, one for strategy formulation and one for performance measurement formulation (Nørreklit 2000).

The relationship to the world outside the company has raised critique too. Marr and Adams discussed the problems and conflicts in the classification of intangible assets in their article (Marr, Adams 2004). They state that Kaplan and Norton failed to acknowledge the large body of literature and produced an inconsistent and incomplete view. Based on the article, intangible assets have multiple classifications but those are converging towards a framework consisting of human capital, organizational capital and relational capital.

Pauwels et al reminds that the Balanced Scorecard gives very little attention to competition. As a solution for the problem they suggest that benchmarking could be handled by developing a marketing dashboard based on the company’s scorecard (Pauwels et al. 2009)

2.2.7. Balanced Scorecard in cooperation with different systems

Results and feedback from different researches seems to have had response. Kaplan and Norton presented in various articles revisions and new developments to their ideas.

Relationships to different scorecards

The article “Transforming the Balanced Scorecard from Performance Measurement to Strategic Management: Part I” describes two commonly used measure sets that are more balanced than simple financial measurement systems, but have some drawbacks according to article (Kaplan, Norton 2001a). The first one is the stakeholder scorecard, which defines organization’s goals for these groups and develops an appropriate scorecard for measures and targets for them. Those scorecards are missing one crucial dimension, namely how these goals are achieved. Stakeholder scorecards are often a first step on the road to a strategy scorecard, which follows as a natural step when thinking how to achieve targets (Kaplan, Norton 2001a).

A second common scorecard type is Key Performance Indicators. Often when migrating to a Balanced Scorecard, companies convert and group existing measures into four different perspectives. KPI scorecards also emerge when the organization’s technology group, which likes to put the company database at the heart of any change program, triggers the scorecard design. Those scorecards are most helpful for departments and teams when a strategic program already exists. Unless the link to strategy is clearly established, the KPI scorecard will lead to a local but not organization wide strategic improvements (Kaplan, Norton 2001a).

Relationships to financial reporting

The article “Transforming the Balanced Scorecard from Performance Measurement to Strategic Management: Part II” continues the description and comparison between different systems started in the first part (Kaplan, Norton 2001b). Kaplan and Norton discuss the relationship of Balanced Scorecard to other financial and cost measurement initiatives, such us shareholder value metrics, activity based costing and total quality management. The main message is that those different measurement initiatives are not exclusionary, in fact they are highly compatible and organizations will get the greatest benefit by combining those.

Shareholder value management tackles two defects in traditional financial performance measurement, the over- and underinvestment problems. The financial perspective of the Balanced Scorecard can be divided into revenue growth, cost reduction, and improved asset productivity strategies. That framework complements shareholder value management by defining the drivers for revenue growth too (Kaplan, Norton 2001b).

Activity base costing (ABC) was developed to correct the inability of traditional costing systems to identify the drivers of indirect and support costs. ABC operates by relating organizational spending to activities and process that uses them. It can be linked to the Balanced Scorecard in three different levels. The first linkage occurs in the operational measures of the Balanced Scorecard’s internal process perspective. Organization can use ABC model to divide different indirect costs to processes (Kaplan, Norton 2001a).

Second linkage between the balanced scorecard and ABC occurs on the customer perspective. The ABC methods can be used for estimating how profitable loyal and satisfied customers really are. Third linkage can be found in budgeting. ABC can also be combined with shareholder value management by applying the ABC principles in cost accounting (Kaplan, Norton 2001a).

Relationships to Quality Management and to Information Systems

Kaplan and Norton commented the Balanced Scorecard’s relationship to quality management in their article “Transforming the Balanced Scorecard from Performance Measurement to Strategic Management: Part I”. Total quality management is used in many companies. Combining it with the Balanced Scorecard approach opens interesting dimensions for the management. Causal relationships enhance quality programs by presenting how process improvements can link into strategic outcomes. Quality improvements in the internal perspective should improve outcome measures in customer perspective. Quality improvements can lead also to cost reduction, which should cause improvements in financial perspective. At the same time Balances Scorecard framework guides organizations to allocate scarce resources to most important critical internal process that should yield most (Kaplan, Norton 2001a).

The cooperation with different concepts in the company can also be seen from a bit different perspective. Companies achieve benefits in its different systems by using those together. James Edwards discusses how Enterprise Resource Planning (ERP) systems can supply a vital stream of measurement information for Balances Scorecard (Edwards 2001), while and Fang & Lin had good results from using balanced scorecard approach for measuring ERP systems (Mei-Yeh Fang, Lin 2006). Similar conclusions of better quality and completeness of the information have been reported from different system approaches in multiple studies. For example Kent Bauer discusses combining Key Performance Indicators to KPI profiles and using CRM as one of the sources for information (Bauer 2004).

2.3. Marketing Performance Measurement

Generally marketing has related the firm to its current and potential customers. Thus, marketing as a phenomenon represents the customer focus of an organization (Grönroos 2006). Kotler defines that marketing is about identifying and meeting human and social needs (Kotler, Keller 2009). Marketing Performance measurement in turn is the assessment of the relationship between marketing activities and business performance (O'Sullivan, Abela 2007).

Don O’Sullivan and Andrew V. Abela performed an extensive research on marketing performance management’s effect on companies’ performance and conducted how it has a significant impact on firm performance, profitability, stock returns and marketing’s stature within the firm (O'Sullivan, Abela 2007). Yeung and Ennew proved how customer satisfaction is linked to profitability. The impact is positive but direct effects are generally small (Yeung, Ennew 2000).

This chapter presents what is currently know about marketing and its measurement. It begins by showing the current definition and putting the marketing in the organization’s map. Different approaches and some models to measurement are presented. After showing general challenges the chapter ends by showing the framework of different systems and how marketing performance measurement fits there.

2.3.1. Marketing and its location in the organization

History and future

Marketing represents the customer focus of an organization. The traditional marketing definitions have had focus on the marketing function and on delivering pre-produced value to customers (Grönroos 2006) and developing the marketing mix to passive customers (Harker, Egan 2006). However, the development of the competitive environment has shown challenges in the traditional transactional marketing and during last decade new perspectives like relationship marketing have risen (Harker, Egan 2006).

Relationship marketing is regarded as one of the key developmental areas of modern marketing. The core of the idea of the relationship management is the interpersonal interaction between buyer and seller and it is based on the practices and experiences on the business-to-business markets. Among several leading scholars it is seen as a paradigmatic shift in marketing approach (Grönroos 2006, Harker, Egan 2006).

According to American Marketing Association definition, “Marketing is an organizational function and set of processes for creating, communicating and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders” (Grönroos 2006). Christian Grönroos completes that view by highlighting customer focus all over the organization as a process view of the marketing and the real value creation in customers’ processes instead of delivering pre-created value (Grönroos 2006).

The present definition of marketing responses to the new perspectives and recognizes the importance of value for customers and customer relationship management (Grönroos 2006, Kotler, Keller 2009).

Rust, Moorman and Bhalla present broader view in their article "Rethinking Marketing" (Rust, Moorman & Bhalla 2010). The idea of customer centered marketing suggest transforming the marketing department into a customer department and focusing on the customer all over the organization. In such a case, combing CRM with customer department results in bringing IT and analytics skills into marketing department.

Winer had the same idea of dividing the marketing into two different perspectives: Customer acquisition and Customer Retention. The latter could be handled by a Chief Customer Officer whose job focuses only on customer interactions (Winer 2001).

Rust, Moorman and Bhalla highlight how metrics for following the performance should be focused on the customer too. Instead of measuring only product profitability, the customer profitability should be analyzed. Current sales measurement could be completed with customer lifetime value calculations and brand equity with customer equity (Rust, Moorman & Bhalla 2010). The trend for marketers to get more involved in the measurement and planning of business processes in only likely to accelerate in coming years (Seggie, Cavusgil & Phelan 2007).

Marketing location in the organization:

Core processes of the organization have been studied widely in different research perspectives. Porter suggests the organization's value chain presented in the figure 15 to contain both support activities and primary activities, having marketing and sales as one of those (Kotler, Keller 2009, Grant 2008).

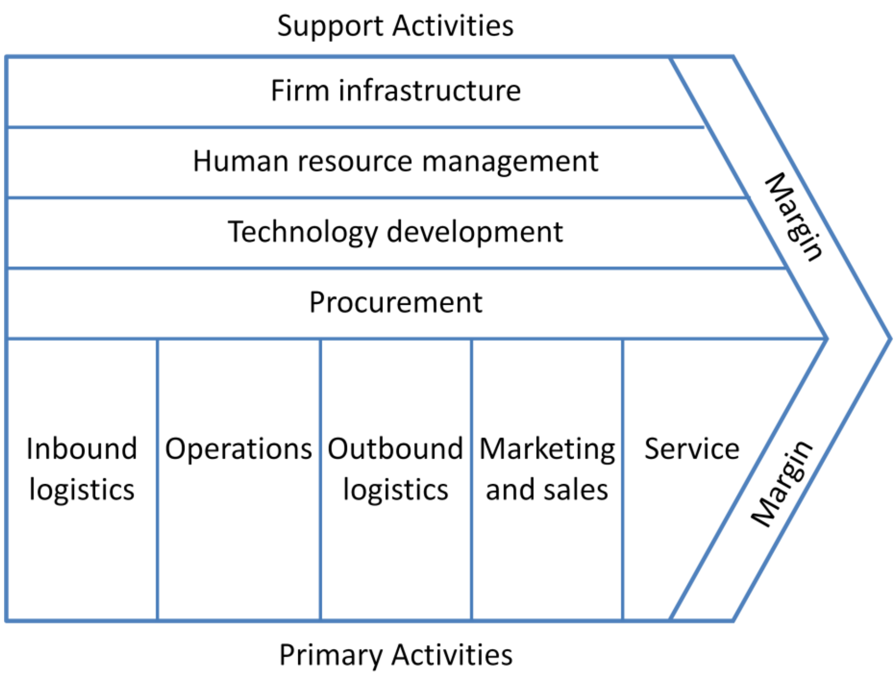

Figure 15: Porter's Value Chain, adapted from (Grant 2008)

Kaplan and Norton describes the Customer relationship management as one of company's critical internal processes (Kaplan, Norton 2004c) and Krajewski et al. defines the organizations value chain to contain supplier relationship process, new product development process, order fulfillment process and customer relationship process in a similar way than Porter (Krajewski, Ritzman & Malhotra 2007), shown in the figure 16.

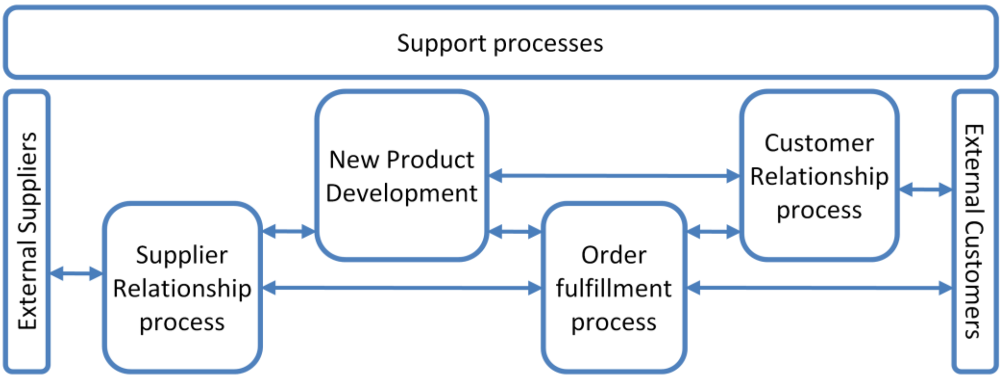

Figure 16: Core Processes, adapted from (Krajewski, Ritzman & Malhotra 2007)

Kotler and Keller continue by categorizing departmental activities in the organization into five different core business processes (Kotler, Keller 2009):

- Marketing sensing process contains all the activities in gathering and acting on the information from markets
- New offering realization process contains all activities in R&D
- Customer acquisition process contains all activities defining target markets and prospecting for new customers
- Customer relationship management process contains all activities in building deeper understanding, relationships and offerings for individual customers
- The fulfillment management process contains all activities related to orders

Other similar frameworks for categorizing are presented in the literature. George Day suggested dividing processes into three main categories: Outside-In processes, Spanning processes and Inside-Out processes. He stated that most distinctive features of marketing driven organizations are their mastery of the market sensing and customer linking capabilities that are located in the category of Outside-In processes (Day 1994).

Rajendra et al. had similar idea of three core processes that create value for customers: Product Development Management, Supply chain management and Customer Relationship Management (Srivastava, Shervani & Fahey 1999). Kaplan and Norton divided the Customer Relationship Management processes further to Customer Selection, Customer Acquisition, Customer Growth and Customer Retention (Kaplan, Norton 2004c).

Combining two different Core Processes approach from Porter and Krajewski, Ritzman & Malhotra, three of the Primary Activities can be chosen to be focusing on external customers, as seen in the figure 17 (Krajewski, Ritzman & Malhotra 2007, Grant 2008).

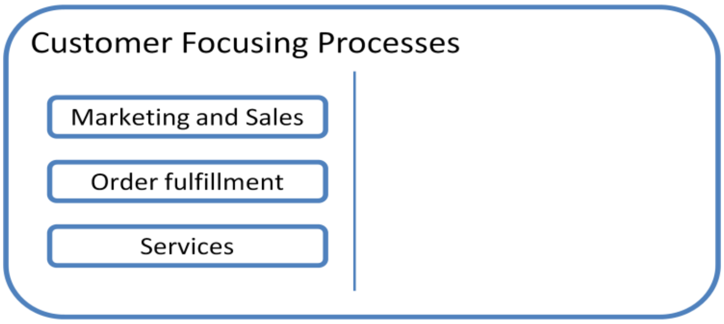

Figure 17: Customer Focusing Processes, adapted from Porter and Krajewski et al (Krajewski, Ritzman & Malhotra 2007, Grant 2008)

2.3.2. Marketing in practice: The Kotlerian view

The marketing can be seen from many different perspectives, such as Transactional Marketing and Relationship Marketing. The Transactional Marketing is the traditional approach that is quite well defined in different literature. One example of it is the Kotlerian marketing management that defines four steps for marketing planning process (Kotler, Keller 2009).

1. The first step is analyzing marketing opportunities. It aims at finding potential market and dividing it to different segments based on different characteristics of potential customers.
2. The second step is called market targeting and it’s about selecting the interesting market segment and positioning the company at it.
3. The third step is to develop a so called marketing mix based on the strategies developed in the first two phases. The marketing mix was suggested by Jeremie McCarthy during 1960’s. It consists of four basic parameters, called 4P: Product, Price, Place and Promotion. Each of parameter is seen as wide category containing multiple different dimensions.
4. The last, fourth step is managing the marketing effort by continually updating the marketing plan based on analyzes of the market development and assessments of the implementation and marketing action (Kotler, Keller 2009).

O’Sullivan and Abela simplified that generally marketing activities can be defined as marketing communication, promotion, and other activities representing the bulk of the typical marketing budget (O'Sullivan, Abela 2007).

Rust et al. continue by stating that marketing actions can help build long-term intangible assets, by influencing customer centered elements like customer satisfaction. Long-term intangible assets presents significant portion of the market value of firms. Marketing actions have both long-term and short term impact. They divided challenges in the tactical level into three different classes: targeting wrong customers, targeting right customers with wrong offer and targeting right customer with right offer at the wrong time. In the light of this problem the traditional marketing mix strategies could be embedded with customer touch history to predict customer profitability in the future business cycles (Rust et al. 2004).

2.3.3. Measuring Marketing Performance

Why to measure?

Seggie, Cavusgil and Phelan provided a sound research describing the needs for measuring marketing performance. Drivers behind that need are coming from different sources. The first category is that corporations are demanding for accountability of value added. Firms measuring return on marketing need to treat expenditures as an investment instead of the traditional view of marketing being a short-term expense to be expanded during strong revenue and cut in times of decline. To contact the investment and financial outcome, the causal linkage between marketing actions and revenues need to be defined (Seggie, Cavusgil & Phelan 2007).

The discontent with traditional metrics is the second category of drivers towards marketing performance measurement. Recent literature cites increasing dissatisfaction with traditional accounting tools, such as balance sheets and income statements. Because the past performance of a firm is no predictor of future performance, metric should be forward-looking and have a long term perspective. Traditional metrics fail to reflect the value of intangible assets held by a company too (Seggie, Cavusgil & Phelan 2007).

In addition, scholars have expressed concern of the accuracy of subjective measures of performance, because the potential bias and immaterial relationship between measures and financial performance. Finally, there is a demand for relative approach to metrics, for example benchmarking actions of the competitive firm (Seggie, Cavusgil & Phelan 2007).

The third category is the availability of IT and Internet infrastructure. A technological component is also necessary for the realization of new metrics. Different systems allow companies to perform the necessary motoring that enables the use of alternative metrics (Seggie, Cavusgil & Phelan 2007).

As a result of drivers for needs for marketing performance measurement, non-traditional measures are required for managers to measure performance in a more accurate way (Seggie, Cavusgil & Phelan 2007).

Approaches to measurement

Rust et al made a wide literature review of the marketing productivity measurement. Based on that review they created the Chain of Marketing Productivity seen in the figure 18. The framework can be used for evaluating marketing showing the chain of effects starting from the strategy (Rust et al. 2004).

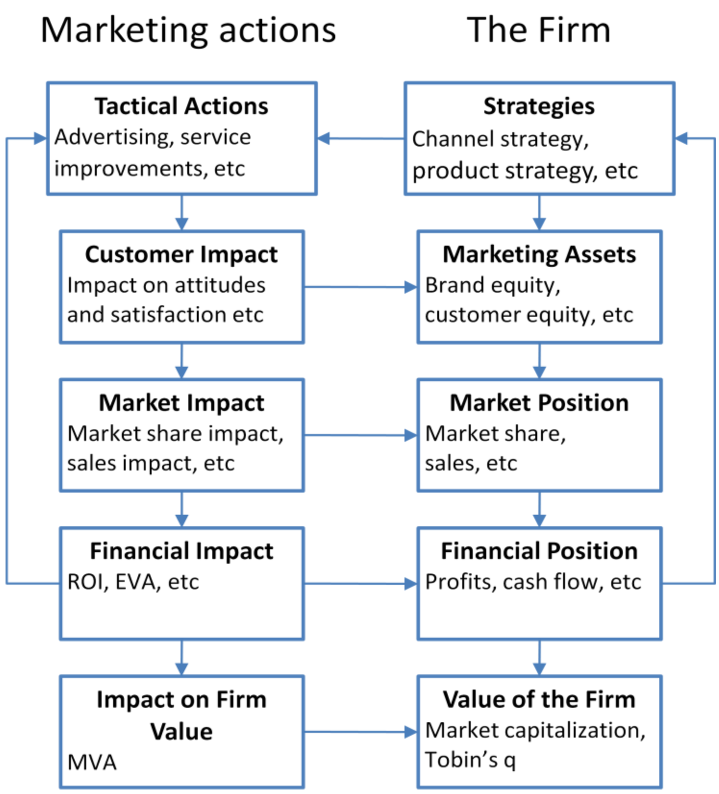

Figure 18: The chain of marketing productivity, adapted from (Rust et al. 2004)

Strategies lead to tactical marketing actions like advertising campaigns, service improvements or other specific initiatives designed to have an impact on customers. These actions can be measured by assessing customer centric elements, for example customer satisfaction or attitude towards the brand. The information can be aggregated into the marketing assets measured by indicators such as customer equity and brand quality. Customer behavior has an impact on markets and market position and later on, it has also a financial impact. Rust et al. continue that the marketing assets present a reservoir of cash flow that has generated by marketing actions but haven't translated into revenues (Rust et al. 2004).

Frösen suggested on top of the Rust et al. model the division of marketing performance into three different indexes: Efficiency is linked with marketing activities, Effectiveness with Firm strategies, and Adaptability with a new dimension compared to the chain of marketing productivity, marketing orientation (Frösen 2008).

There are three different approaches in recent research for marketing measurements. Some researchers have been continuing the accounting based assessing. The Economic Value Added is one example. It is a perspective that goes beyond simple accounting measures and considers expenditures as investments that should be evaluated in line with the return on investment. Other researchers have taken a different approach and attempted to develop non-accounting metrics completing the view of already existing financial metrics. Current approach is based on valuing intangible assets, having Balanced Scorecard as one example (Seggie, Cavusgil & Phelan 2007).

In addition to already presented approaches, the third approach that is increasingly popular among marketing practitioners but has received only limited attention in marketing research is the usage of marketing dashboards. Those combine different key performance indexes from different perspectives into one cockpit. Two important elements are that they provide automated real-time reporting with potential to drill down to the program-level data. Pauwels et al propose how company's balanced scorecard could be refined to marketing's dashboard (Pauwels et al. 2009).

The extensive research made by Don O'Sullivan and Andrew V. Abela showed how different approaches to the measurement do not have too big difference. Marketing performance measurement had a significant impact on company's performance but different technologies didn't have a big difference (O'Sullivan, Abela 2007).

What to measure?

Based on the drivers for the requirements for marketing performance measurement, Seggie, Cavusgil & Phelan defined a framework for evaluating the candidate metrics. The Framework consists of seven different dimensions, from which marketing metrics should be developed (Seggie, Cavusgil & Phelan 2007):

1. Address the financial value of intangible assets
2. Have a forward-looking instead of historical perspective
3. Highlight the long-term gains
4. Be able to incorporate the data with a micro-level granularity
5. Provide a value that allows comparison with competitors
6. Causally link marketing investments to financial outcomes
7. Have an objective view to measures

Existing literature shows that there is no one index at the present time that fits the requirements of the modern metrics, although it might be good to measure it at least partly in terms of financials (Ahonen, Rautakorpi 2008). One suggestion is having a bunch of metrics from different perspectives to give a complete over all view of marketing asset's value and short-term management measures for evaluating the success in business (Seggie, Cavusgil & Phelan 2007, Ambler, Roberts 2008).

The marketing assets and customer equity approaches have wide support in the literature. Tim Ambler stated in his article that companies should focus on measuring the marketing asset and its drivers (Ambler 2001). In the Chain of Marketing Productivity Rust et al. stated that marketing assets presents unrealized cash flows and divided it into brand equity and customer equity (Rust et al. 2004). Ahonen and Rautakorpi stated that the effective management of Value Chain with customer's value creation processes leads to higher Customer Equity (Ahonen, Rautakorpi 2008). Kumar and Shah presented that Customer Equity is linked into the company's market value. They also reported how marketing strategies directed at increasing the customer equity also increases the stock price (Kumar, Shah 2009).

Key measures

Rust, Moorman and Bhalla focused on the transformation of the marketing in their article. They highlight that metrics for following the performance should be focused on the customer too. Instead of measuring only product profitability, the customer profitability should be analyzed. Current sales measurement could be completed with customer lifetime value calculations and brand equity with customer equity (Rust, Moorman & Bhalla 2010). These metrics are collected to the figure 19 to be the core of the measurements of customer-oriented processes.

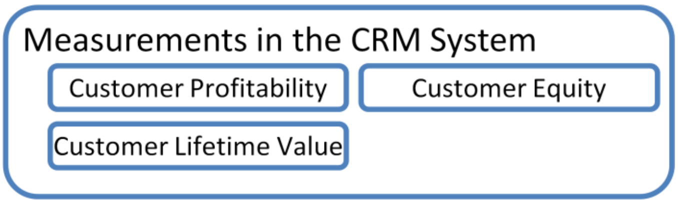

Figure 19: Key Measures for Assessing Marketing Performance (Rust, Moorman & Bhalla 2010)

Customer Equity

Customer equity (CE) can be seen as an alternative approach to brand equity with the philosophy of concentrating on customers. Three different drivers for the value can be found: value equity, brand equity and retention equity. The actual calculation consists of summing the lifetime values of current and future customers (Kotler, Keller 2009, Seggie, Cavusgil & Phelan 2007, Rust et al. 2004, Kumar, Shah 2009, Rust, Zeithaml & Lemon 2004).

Relational equity perspective is an addition to the customer equity. It links to the growth of relationship marketing and is defined as the wealth-generating potential that comes from company's relationships with its stakeholders (Seggie, Cavusgil & Phelan 2007).

Brand Equity

Measuring Brand Equity was one of the first attempts to measure intangible assets specific to marketing and it gained much attention during the beginning of the 1990's. It shows how marketing expenditures produce a valuation premium greater than that implied by cash flow (Rust et al. 2004). There are two different approaches to the BE calculations: Consumer psychology approach and financial approach (Seggie, Cavusgil & Phelan 2007).

From the consumer psychology perspective the measurement of brand equity is based on loyalty measures, perceived quality measures, associations and differentiation measures and awareness measures. It is a mix of mostly non-financial objective and subjective measures having historical focus. Financial perspective of brand equity focuses more on objective measures. The calculation is based on the market valuation of the company and its brand. Benchmarking different companies and brands is easier and the market value is forward-looking with long-term perspective (Seggie, Cavusgil & Phelan 2007).

Customer Lifetime Value

Customer Lifetime Value (CLV) is a series on transactions between a company and a customer over the period of time that the customer remains with the company discounted with the cost of capital. It combines elements of revenue, expense and customer behavior that drive customer profitability e.g. (Kotler, Keller 2009, Rust et al. 2004, Kumar, Shah 2009, Venkatesan, Kumar 2004).

The background for the interest of CLV lies in the Customer Relationship Management's ability to combine information of individual customers and different customer oriented actions (Kumar, Shah 2009). Venkatesan and Kumar showed how customers selected on the basis of CLV provide higher return than customers selected based on other widely used metrics (Venkatesan, Kumar 2004).

Key parameters for the calculations are the time horizon of three to five years for revenues and costs, purchase frequency pattern, individual customer's contribution to margin, costs for marketing communication and acquisition costs (Kotler, Keller 2009, Venkatesan, Kumar 2004). There are two different purchase pattern scenarios: lost-for-good analyzes lost customer as a potential new one and always-a-share perspective considering the customer changing his buying approach in cycles. The costs and benefits of the communication channels can be divided into three different categories: rich communication including face-to-face and trade shows, standardized communication containing direct mail and telephone based, and web based communication (Venkatesan, Kumar 2004).

Economic Value Added

Economic Value Added (EVA) is one accounting method that has been widely investigated. It is defined as the difference between firm's net operating income after taxes and its cost of capital of equity and debt. The critique for the index contains that nature of the metric is historical and it has a short-term orientation (Seggie, Cavusgil & Phelan 2007).

Return on Customer

Return on Customer (ROC) is based on discounted cash flow calculation and changes in the Customer Equity, i.e. it partly has roots in accounting-based measures. Peppers and Rogers describe how return on a customer is not just a metric, but a philosophy based on earning the trust of customers. Research shows also that companies with the best reputations for customer advocacy get the most additional business because when a customer perceives company to be acting in his own interests, then he benefits every time he deals with the company (Peppers, Rogers 2005). Ambler and Roberts criticize the return on customer based on the uncertainty of forecasting and discounted cash flow perspectives (Ambler, Roberts 2008).

2.3.4. Challenges in measuring performance

Researchers have provided different approaches for challenges in the marketing performance measurement. For example David Lengacher presented three different categories for common challenges: finding right metrics, measuring correctly, and combining metrics (Lengacher 2009). Rust et al. in turn discussed challenges from another perspective and showed three central problems in the indexes used (Rust et al. 2004):

1) Marketing actions links to long-term effect
2) Separation of marketing actions from other actions
3) Financial measures are not enough, also non-financial are needed

Literature provides various frameworks and models for solving those requirements, such as seen in previous chapters. In addition to those, Likierman presented more general list of best practices to avoid common caveats in the performance management (Likierman 2009):

- A really good assessment system must bring finance and line managers into some kind of meaningful dialogue that allows the company to benefit from both relative independence of the former and the expertise of the latter.
- To measure how well the company is doing, it needs information about the benchmarks that matter most – the ones outside the organization.
- Beating last year's numbers is not the point, instead the performance measurement system needs to tell the company whether the decisions it is taking now are going to help in the coming months.
- The problem of putting faith in the numbers could be solved with getting those either after longer time period or try to use qualitative measurements.
- By diversifying metrics the potential manipulation is harder or at least the impact is not so big. The link between meeting budgets and performance should be loosen.
- The focus in measuring should be in the profit and in the comparison to competitors. Companies need to be very precise when specifying indicators.

The possibilities that information systems provide shouldn't be seen as a solution for everything. Tim Ambler raises critique towards the technology based marketing by highlighting the importance of acting with the customer and knowing them, and using technical possibilities to help customers. (Ambler 2007)

2.3.5. Measuring marketing within systems in the organization

Because marketing is a business project, it is subject to the laws of process input, process management and process outcome. This opens a view to the process management. At the same time, the critical knowledge about companies' customers is achieved through sophisticated marketing research and CRM. In addition to financial data, CRM system offers a detailed look at marketing effectiveness with respect to different customer metrics or by dividing various outcome metrics on customer oriented actions, such as marketing campaigns (Crosby, Johnson 2001).

Winer presented an idea of dividing the marketing into two different perspectives: Customer acquisition on Customer Retention. The latter could be handled by a Chief Customer Officer whose job focuses only on customer interactions (Winer 2001). CRM systems are supporting the customer centric marketing by storing the data of customer-oriented actions electronically and giving an access to an organized view of the information, in real-time. Ideally, company could know the network of providers and intermediaries that interact with its customers and prospects. CRM system can be a marketer's best friend that helps building business cases highlighting marketing relationship between marketing actions and desired outcomes (Winer 2001, Crosby, Johnson 2001, Wymer 1999).

2.4. Customer Relationship Management

This chapter summarizes the concept of Customer Relationship management (CRM). It begins with the definition of the CRM and continues by describing the strategic framework and different perspectives with regards to the concept. The first section discusses the definition of the CRM. It is followed by presentation of different perspectives and review of the history and the future. In the end of the chapter, the implementation, challenges and the measuring of the concept are described.

2.4.1. CRM is about managing customer relationships profitable

Customer Relationship Management can be seen from multiple different viewpoints and there have been lots of different studies of the concept during last 15 years. It has many definitions for the concept, for its framework and for the perspectives. Luckily, according to literature review, those definitions are not contradictory.

The common definition of the concept has begun to reach a consensus: CRM relates to strategy managing the dual-creation of value, the intelligent use of data and technology, the acquisition of customer knowledge and the application of this knowledge to the appropriate stakeholders, the development of appropriate relationships with specific customers and the integration of processes across the many areas of the firm and across the network of firms that collaborate to generate value (Harker, Egan 2006, Payne, Frow 2006, Kim, Suh & Hwang 2003, Reinartz, Krafft & Hoyer 2004, Kim, Kim 2009, Hsin 2007, Tamošiūnienė, Jasilionienė 2007).

Many articles have examined the three different perspectives for CRM strategies. It can be strategically embedded within either customer intimacy or operational excellence strategy or then tactical implementation, without specific strategic background (Langerak, Verhoef 2003, Iriana, Buttle 2006, Peppers, Rogers 2004).

2.4.2. Strategic Framework and Different Perspectives

Strategic Framework

The strategic framework of CRM has attracted much attention in the research. Payne and Frow presented a conceptual framework for Customer Relationship Management in their article "A Strategic Framework for Customer Relationship Management" (Payne, Frow 2005). The model consists of five key cross-functional CRM processes seen in the figure 20. The model helps broaden the understanding of CRM and its role in enhancing customer value: Strategy Development process, multichannel integration process, an information management process, and a performance assessment process.

The Strategy Development Process involves a detailed assessment of business strategy and the development of an appropriate customer strategy. Customer strategy is usually the responsibility of the marketing department. It involves examining the existing and potential customer base and identifying which forms of segmentation are the most suitable.

The value creation process transforms the outputs of the Strategy Development Process into programs that extract and deliver value. It contains three key areas: identifying the value that the customer gets as customer value proposition, determining the value that company receives, and maximizing the lifetime value of desirable customer segments.

The value that the organization receives and the lifetime value of different segments are based on the customer value, which is the outcome of the produced value for the customer, the deployment of acquisition and retention strategies, and the utilization of channel management. From this perspective, it is important to note differences of the value of different customer segments and the possibilities created by the economics of customer acquisition and retention.

The multichannel integration process takes the outputs of the business strategy and value creation processes and translates them into value-adding activities with customers. It is one of the most important processes in the CRM. Channel options can be divided into different categories and the usefulness has to be managed to provide the perfect customer experience effectively.

The information management process is concerned with the collection, collation and use of the customer data and information from all customer contact points to generate customer insight and appropriate marketing responses. It provides both the means and possibilities for sharing relevant customer and other information around the company.

The Performance Assessment Process covers the essential task of ensuring that aims and tasks of the CRM are achieved in an appropriate way and that a basis for future improvement is established. This process has two main components; shareholder results and performance monitoring. The format of the balanced scorecard enables a wide range of metrics designs and indicators that show financial results now and potentials in future need to be considered as a part of this process.

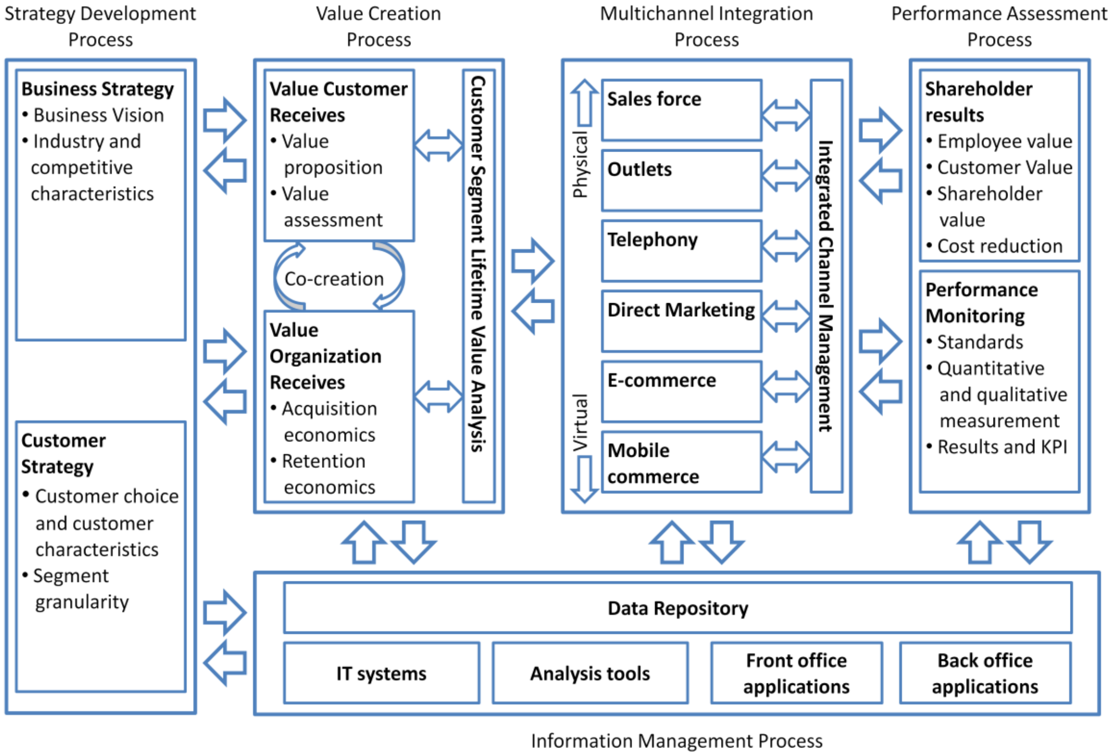

Figure 20: Strategic Framework for CRM, adapted from (Payne, Frow 2005)

Different Perspectives

Langerak and Verhoef identified three different types of CRM perspectives in their article "Strategically embedding CRM". It can be strategically embedded with either customer intimacy or operational excellence strategy or tactical implementation, without specific strategic background (Langerak, Verhoef 2003).

The main differences of the different perspectives are important for understanding the challenges of the implementation. Each type has its own characteristics and requirements. CRM with a strategy of operational excellence has an orientation in business processes. The focus is on the optimization of current customer profitability (Langerak, Verhoef 2003).

Strategy orientation linking CRM to customer intimacy highlights the customer and its lifetime value. Tactical CRM approaches are not embedded in business strategy and organization. These approaches could be applied in more transaction oriented organizations and the focus is on efficient selling of products and services (Langerak, Verhoef 2003).

Iriana and Buttle developed and presented an instrument for assessing the company's orientation towards the CRM in their article "Strategic, Operational, and Analytical Customer Relationship Management: Attributes and Measures" (Iriana, Buttle 2006). Based on literary review they divided CRM orientation into three different perspectives, similar compared to Langerak and Verhoef's work. Iriana and Buttle refine the model developed by Payne and Frow (Payne, Frow 2005) forward by dividing the model into different categories, as seen in the figure 21.

Strategic CRM encompasses the strategy development process and the value creation process. Operational CRM is focused on the management of the virtual and physical channels through which customers and organization communicate and transact. Analytical CRM is focused on the development and exploitation of customer data (Iriana, Buttle 2006).

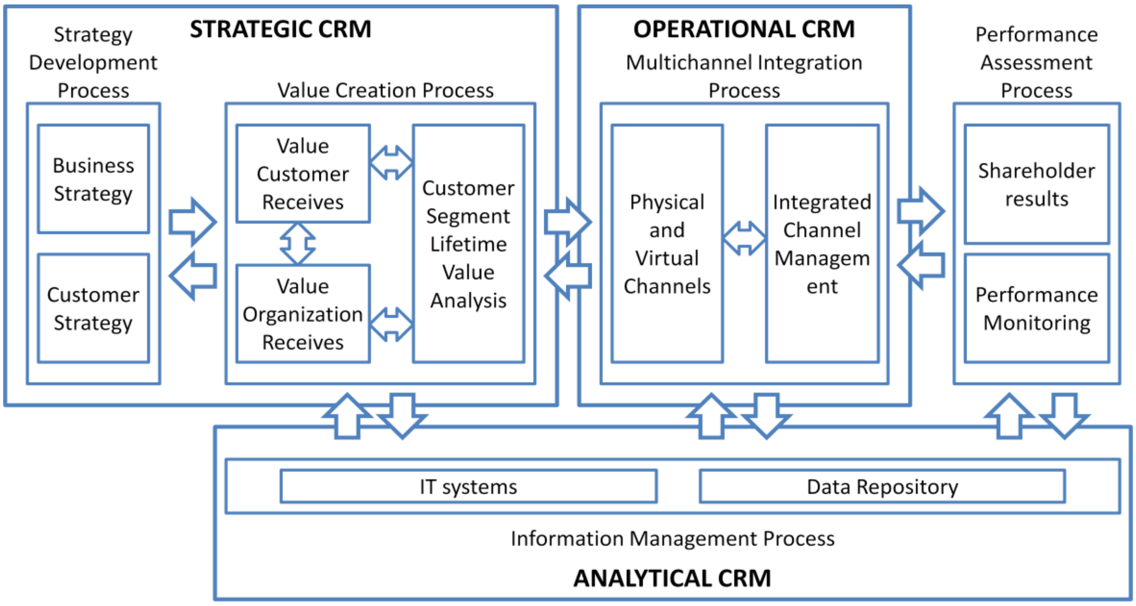

Figure 21: Strategic, Operational and Analytical CRM, adapted from (Iriana, Buttle 2006)

Iriana and Buttle note that even organization might not have developed a formal CRM strategy, it would have a de facto CRM strategy with people, process and technology used for the management of customer relationships (Iriana, Buttle 2006). The scale they developed for examining the CRM orientation in the organization is presented in the figure 22:

Strategic CRM	Analytical CRM	Operational CRM
• Our CRM strategy aims to win and keep carefully chosen customers or customer segments • Our company is using CRM to ensure that all our people understand which customers we want to serve • Our company uses CRM to help us identify hihg-value customers • Our company uses customer information to construct customer profiles which are used to improve the consistency of the customer's experience	• An important objective of our CRM program is to create a comprehensive customer-related database • An important objective of our CRM program is to deliver customer data to our people at the right time so that they can cross-sell and up-sell customers • An important objective of our CRM program is to deliver customer data to our fron-tline staff so that they can sell, operate more effectively • An important objective of our CRM program is to enable us to conduct intelligent analyses of customer data to guide our marketing and sales efforts • An important objective of our CRM program is to improve the productivity of our sales people	• An important objective of our CRM program is to reduce the cost of our customer-interface operations • Our company user CRM to automate customer service processes to make them more efficien and effective • Our company user CRM to automate marketing processes to make them more efficient and effective • Our company user CRM to automate selling processes to make them more efficien and effective

Figure 22: Scale for examining different perspectives, adapted from (Iriana, Buttle 2006)

Pedron and Saccol categorized CRM definitions into three different approaches that are similar to other categories in the literature (Pedron, Saccol 2009).

CRM as a philosophy of doing business refers to customer-oriented culture keen on building and developing long-term relationships with customers. It goes beyond a deliberate strategy or tool application. It is related to positive attitudes towards all kinds of stakeholders.

CRM as a strategy refers to an organizational strategy that will drive functional plans and actions toward building relationships with customers. It is related to a formal and deliberated plan and actions to articulate processes, people, structure and technology to acquire, select and retain customers with a high lifetime value to the company, independently of the specific IT applied to support this strategy.

CRM as a tool approaches are focused on the role of IT being used to gather, analyze and apply data to build and manage relationships with customers. CRM is frequently viewed as an information system or a group of tools applied in helping firms to identify customers, to support market segmentation, interaction with customers and personalization of products and services. Several authors agree that without a CRM philosophy or strategy, the application of IT for CRM effort is incomplete.

The categorization Pedron and Saccol discussed makes a good summary of the discussion of different perspectives to CRM in the current literature.

2.4.3. History and future of the CRM

CRM is a relatively new management discipline, beginning in the 1990s, with its roots in relationship marketing. It is the outcome of the continuing evolution and integration of marketing ideas and newly available data, technologies and organizational approaches (Payne, Frow 2006).

Relationship marketing is regarded as one of the key developmental areas of modern marketing. The core idea of relationship management is the interpersonal interaction between buyer and seller and it is based on the practices and experiences on the business-to-business markets. Among several leading scholars it is seen as a paradigmatic shift in marketing approach (Harker, Egan 2006).

The roots of the relationship in marketing are in traditional school of Transactional Marketing, which focuses on developing marketing mix for passive customers. Transactional marketing was working effectively on growing markets with homogenous customer demand and trust, effective mass marketing and dominant manufacturers after the Second World War. The evolution from growing to mature markets and intensive competition during the end of the twentieth century led to challenges in Transactional Marketing and raise of new perspectives like Relationship Marketing. (Harker, Egan 2006)

Relationship marketing emerged from work carried out in the 1980s in industrial marketing. According to the article, Leonard Berry defined it as attracting, maintaining and enhancing customer relationships in his paper written in 1983. It was a topic of great interest during the 1990s but still it has not developed as a streamlined and integrated body of research. Authors adopted common perspective suggesting that relationship marketing is concerned with managing relationships with multiple stakeholders, while the focus of customer relationship management is primarily on the customer (Payne, Frow 2006).

After strong growth during the end of the first decade the demand collapsed and in the beginning of the 2000s CRM was the considered to be most hyped-up technology because of lots of unsuccessful implementations. A few year later companies began to report increased returns on investments on CRM and the demand was rising again. The future of the concept seems to be brighter because also middle- and small sized companies began to implement it (Tamošiūnienė, Jasilionienė 2007).

Clara Smith presents in her article “Facebook is the future of CRM” how different social media tools have become a sort of CRM for individuals (Smith 2009). Those tools are about how a growing number of people manage relationships across personal and professional realms. It is a clear indication of how CRM should concern customers, not technology.

According to Smith, the future of CRM will be transparent, customer-centric and customer driven. Every person maintains their own up-to-date profile and chooses what does they want to know and how. Social CRM applications can enable users to view social media profiles and connections to learn more about prospects and build better relationships with customers, improving the customer centricity of their interactions (Smith 2009).

Shaju Nair continued down the path show by Smith. He suggests in his article "CRM from Customer to Community" that companies should focus on the customers as a part of a community in the future. Interactions in the social communities could be stored and analyzed in the CRM system to compare costs and benefits from Social media initiatives (Nair 2009).

2.4.4. What is the CRM for?

In different literature the origins for CRM can be found easily. Rosenberg and Czepiel estimated that the average company spends six times more to get a new customer than it does to hold a current one (Rosenberg, Czepiel 1983). Same kinds of results were presented by Reichheld, Sasser who found that customer defections have a surprisingly powerful impact on the bottom line. As a customer's relationship with the company lengthens, profits rise. Companies can boost profits by almost 100% by retaining just 5% more of their customers. They showed that the longer customers are retained by a company, the more profitable they become because of increased purchases, reduced operating costs, referrals, price premiums, and reduced customer acquisition costs (Reichheld, Sasser Jr. 1990).

Peppers and Rogers highlight the importance of customer trust. They state that it is the currency for all commerce and the basis for company's learning from relationships. Any company that hopes to build long-term value for shareholders has to earn its customer's trust. Learning from customers enables a company to develop more personalized and collaborative interactions with individuals and to increase the value of the customer base (Peppers, Rogers 2004, Humphreys et al. 2009).

Tamošiūnienė and Jasilionienė examined the relationships concept in the CRM and defined it to be a two directional communication and interaction process between the customer and company. They defined three different relationship types: Business to consumer relationship includes both formal and ad hoc relationships and is all about creating business value and improving customer relationships. Business to business relationships are typically based on formal contractual arrangements. Business to business to customer relationships occurs when companies sell products to consumers via retailers and brokers (Tamošiūnienė, Jasilionienė 2007).

Pine, Peppers and Rogers tell us that there are two technologies that help fulfill customer requirements. Mass customization means efficiently providing individually customized goods and services and one-to-one marketing is about eliciting information from each of customers about his or her specific needs and preferences. These techniques tie consumers and producers together in a way what authors call learning relationship. It is an ongoing connection that becomes more effective as the two interact with each other, when individual customers teach the company more and more about their preferences and needs, giving the company a competitive advantage. Some of the customers of companies have higher lifetime value because the insights they provide to the company may result in new capabilities that can be applied to other customers (Pine II, Peppers & Rogers 1995).

Rust, Moorman and Bhalla present the idea of customer centered marketing suggests transforming the marketing department into a customer department and focusing on the customer all over the organization. In such a case, combining CRM with customer department results in bringing IT and analytics skills into marketing department (Rust, Moorman & Bhalla 2010).

From the measuring point of view, Bauer describes how CRM could be used as one of the sources for the information. He reminds how CRM should be really only about value creation that results from acquiring, maintaining and serving highly profitable customers (Bauer 2004).

2.4.5. CRM markets

CRM markets consist of many different products and vendors. Payne and Frow divided the CRM technology market participants into different categories and segments: Integrated CRM and Enterprise Resource Planning Suite, CRM Suite, CRM Framework, CRM Best of Breed, Build It Yourself, and CRM service providers and consultants. According to the article, only a few software vendors can provide the full range of functionality that complete CRM business strategy requires (Payne, Frow 2005).

CRM markets extended its growth streak to a fifth year during 2009. The top five vendors in the worldwide markets are SAP, Oracle, Salesforce.com, Microsoft and Amdocs. The software-as-a-service side continues to push the overall CRM market forward, representing approximately 20 percent of total CRM software revenue in 2008. The future area of interest is going to be the usage of data generated from social networks in CRM (Tsai 2009).

The article 2009 CRM Market Awards in the CRM magazine gives a snapshot of the market year 2009 by ranking companies and products in ten different categories (Musico et al. 2009). Those categories were divided between the business-models, target market, offered solutions and consultancies as seen in the figure 23.

<table>
<tr><th colspan="30">Categories for the 2009 CRM Market Awards</th></tr>
<tr><td colspan="10">Enterprise Suite CRM</td><td colspan="10">Midmarket Suite CRM</td><td colspan="10">Small-Business Suite CRM</td></tr>
<tr><td colspan="6">Sales-Force Automation</td><td colspan="6">Incentive Management</td><td colspan="6">Marketing Solutions</td><td colspan="6">Business Intelligence</td><td colspan="6">Data Quality</td></tr>
<tr><td colspan="15">Open-Source CRM</td><td colspan="15">Consultancies</td></tr>
</table>

Figure 23: Categories for the 2009 CRM Market Awards, adapted from (Musico et al. 2009)

Markets can be divided into three different group based on the target company size: Enterprise suite CRM, midmarket suite CRM and small business suite CRM. The development in all different areas had one common factor: the shift towards on-demand Software as a Service -solutions. Surprisingly, some vendors could be seen in all categories (Musico et al. 2009).

Categories for offered solutions consist of five different perspectives: Sales force automation, incentive management, marketing solutions, business intelligence, and data quality. These categories provide a good insight for most important objectives of the CRM technologies. The last two categories were open-source CRM and consultancies (Musico et al. 2009).

The overall view of the development of the CRM markets can be achieved based on these ten different categories. There are different solutions for different sizes of companies and these solutions are either provided as a service or as an installable application. The open-source applications are changing the rules of the software markets and this shift is having an impact on the CRM markets too, giving more room for different consultancies. The most important objectives for technical implementations of CRM are related to the process automation and versatile reporting.

One of the products: Microsoft Dynamics CRM platform

Customer Relationship Management technologies have existed for years, but the new web-based perspective has changed the picture. Microsoft Dynamics CRM is one of those new-generation software. Basically, it is a very simple CRM product that has three delivery models. It can be on-premise on company's own servers, or partners can host the server, or in the US there is possibility for Microsoft-hosted CRM online (Tsai 2009), (Accounting Today 2008).

Originally Microsoft Dynamics CRM was aimed at small and medium sized businesses but nowadays it has grown to be a choice for larger enterprises too. Microsoft has made interesting moves in the area of relationship management systems promoting the concept of xRM but it has some challenges with its functionality. Components of the software for sales and customer service are significantly more robust than its marketing aspect, similar challenges other vendors have. Dynamic CRM is integrated with daily used tools, for example the well-known e-mail and calendar application Outlook (Yack 2008).

The .NET framework and tools based platform Microsoft created could be used for building all kinds of business applications. It provides basic "plumbing" like Custom Data Modeling, Security model and Customizable UI and much more powerful features to help creating value adding applications effectively, giving the platform multiple new business possibilities (Musico et al. 2009, Yack 2008).

2.4.6. Implementation of CRM

This section presents the implementation of the CRM. It presents organizational requirements needed and the implementation process definitions from the literature review.

Organizational requirements

The organizational requirements for different perspectives of the CRM implementation are examined widely. These are mainly about the objectives and definition of CRM, and overall company strategy and the management support (Langerak, Verhoef 2003, Payne, Frow 2005, Mukerjee, Singh 2009, Bland 2003).

Rigby and Ledingham articulate it clearly: It is important to have clear customer strategies and supporting organizational structure before starting the implementation of new technology. The business has to have a clear need for better information and visionwhen when it is good enough (Rigby, Ledingham 2004).

Langerak and Verhoef made an interesting finding about how different approaches for the CRM have different implementations of software and they should result differently. For customer intimate CRM, the software should facilitate customer relationship building. For operational excellent CRM, software should improve the customer interaction process and lead to cost reductions. The tactical approach of CRM should primarily result in cost reductions (Langerak, Verhoef 2003). Payne and Frow articulated following similar three perspectives: Narrow and tactical as a particular technological solution, wide-ranging technology solution and a customer centric implementation (Payne, Frow 2005).

Hsin investigated the relationships between Business Process Reengineering, Organizational learning, Relationships quality and Organizational Performance in the implementation of a CRM system. He concluded that there is a strong relationship between those perspectives and excellence in different perspective supports the CRM implementation (Hsin 2007). The overall business process dimension was investigated by Lee and Aggarwal, who argued that a successful enterprise resource planning tool (ERP) implementation should begin with well-defined business processes. They continue that to gain the benefits of ERP systems companies should change the way they are managed and operated from function-oriented to process-oriented after ERP goes live (Jong-Sung Lee, Aggarwal 2009).

CRM Implementation process

Much research has been done for supporting the CRM implementation. Various studies highlight problems and reasons for reported failures in CRM initiatives (Langerak, Verhoef 2003, Pedron, Saccol 2009, Mukerjee, Singh 2009, Bland 2003, Rigby, Ledingham 2004, Kale 2004).

Mukerjee and Singh presented a strategic framework for the CRM based on their studies (Mukerjee, Singh 2009). The framework consists of four different parts, CRM Vision, goals, implementation and performance.

The starting point for a CRM initiative is the CRM vision that can be explained as the destination of the project. It should be a single statement that unifies the company's approach towards CRM. Objectives and goals for the CRM project are derived from the vision. Later on, the performance of the CRM initiative can be measured against those objects and targets (Mukerjee, Singh 2009).

The second part of the framework, CRM goals, contains Customer profitability, segmentation and personalization. Customer profitability is the most critical parameter, because in the CRM the company is expected to focus on its key customer (Mukerjee, Singh 2009).

The scoping of the implementations objectives is described in detail in the article of Rigby and Ledingham, written a few years before (Rigby, Ledingham 2004). Instead of trying to implement everything that technology allows at the same time, they suggest some familiar keys to succeeded implementation: strong executive and business-unit leadership, careful strategic planning, clear performance measures and a coordinated program that combines organizational and process changes with the application of new technology. Same kind of ideas have been suggested in different articles (Tamošiūnienė, Jasilionienė 2007, Bland 2003).

Rigby and Ledingham continued by suggesting that carefully analyzing the customer life cycle described in the figure 24 and focusing on the pain points is the effective way to build the CRM program. It is also an effective way for getting an un-successful initiative back on track. Then later on, once the company has succeeded with the smaller, more-targeted CRM project, it is possible to continue forward. Each step in building the system has to represent a carefully planned, well defined advancement in strategic thinking (Rigby, Ledingham 2004).

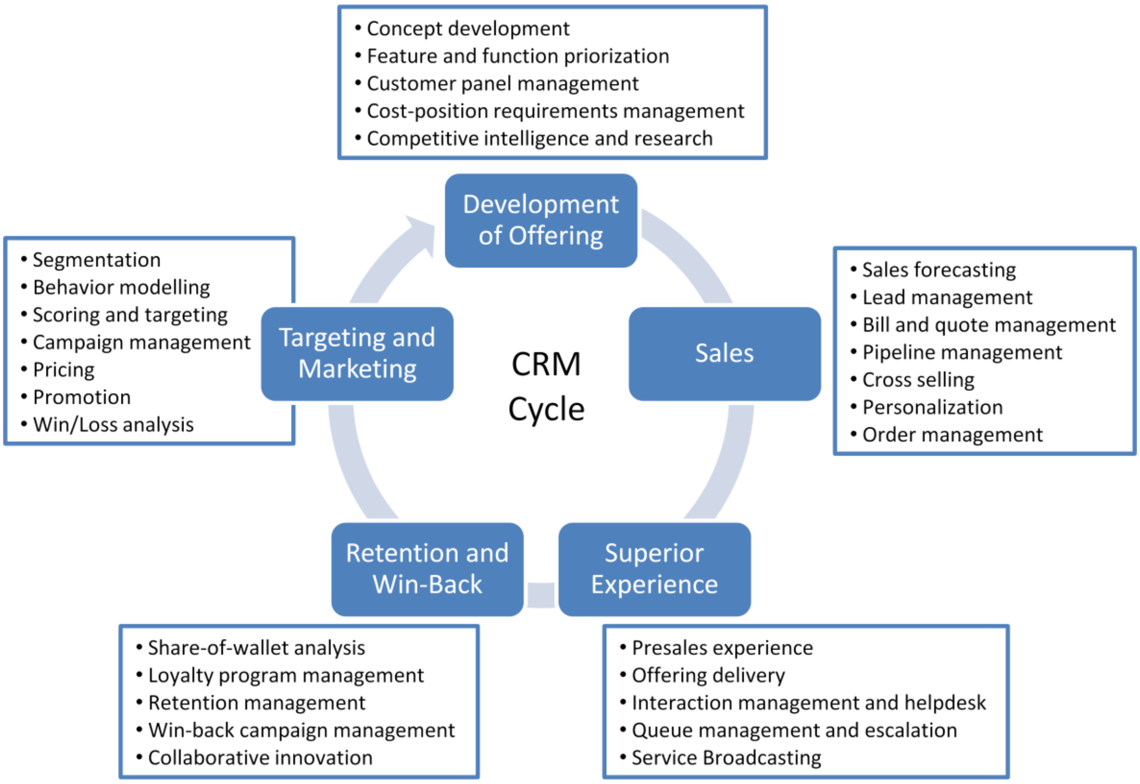

Figure 24: Customer Relationship cycle, adapted from (Rigby, Ledingham 2004)

The third part of the framework is the CRM implementation. Before beginning the implementation, the organization has to be ready and oriented with CRM. Based on the objectives of the project the CRM technology is selected. Then during implementation different objectives are fulfilled.

The last part of the framework is the CRM performance assessment. Achieved results are compared with original metrics derived from the vision in the beginning of the project.

Tamošiūnienė, Jasilionienė summarize the implementation research by pointing out that there isn't one common solution business strategy for a successful CRM initiative, but there are some best practices that are essential for success. Companies need to understand what CRM really is, how to approach it and what it means to business and customers (Tamošiūnienė, Jasilionienė 2007).

2.4.7. Challenges

As shown before, there has been a great deal of research about into the reasons causing very high failure rate in CRM projects. Multiple reasons and issues have been presented in different articles, for example CRM Failure and the Seven Deadly Sins (Kale 2004), and different models built on top of that information, as seen in previous chapters. Christian Grönroos critiques customer relationship management by noting that it should be the customer choosing if the relationship exists or not, instead of company's marketing department. He continues that companies do have customers, who are not in a relationship though they are customers (Grönroos 2006).

Pedron and Saccol conducted an exploratory research of the issues causing so many CRM implementations to fail (Pedron, Saccol 2009). The report assumes that one of the main reasons is the lack of understanding of the true meaning of practices for managing relationships with customers. They present a good question: There seems to be a solution being offered; what is the problem to solve?

They pointed out a few common errors in the literature: Lack of skills in building and using the new IT-based RM systems, Inadequate investments: many projects exceed their costs and sometimes the scope, Poor data quality and quantity, Failure to understand the business benefits, Lack of leadership and top management involvement, Inadequate measurement systems, cultural problems: many organizations need to change their main strategy to focus on their efforts on customers (Pedron, Saccol 2009).

Understanding the meaning of relationships is an essential condition for developing a CRM philosophy that has to guide CRM strategies or drive the use of IT to support relations with customers. Companies have to be very critical of the goals that they set for the CMR strategies and IT applications. According to authors, sometimes a company might have great expectations of increased profits and improved customer loyalty when adopting a CRM IT tool. Instead of this, the company would be implementing a CRM technological approach that goes against any action that could really generate a lasting relationship with customers.

Pedron and Saccol summarizes that by understanding the idea of a CRM philosophy and strategy that to proceeds the CRM tool adoption, managers have to be very realistic about what to expect in the short and in the long term. CRM is about a relationship between a company and a customer, and it requires a deep understanding about what each participant is looking for in the establishment of this relationship (Pedron, Saccol 2009).

2.4.8. Measuring CRM

It is important to divide the measurement of the CRM system and the measurement processes. CRM initiative can be measured with different models shown in this chapter but different enterprise resource management applications can be seen as a source of the information for different performance measuring systems (Edwards 2001, Bauer 2004).

This chapter discusses how the measurement of customer relationships could be carried out and summarizes research results of CRM metrics from literature.

Implementing the measurement

Implementation of CRM measurement is a long story. Gordon Wymer presented the foundation of the idea of measuring customer relationships (Wymer 1999). He raised important questions for the measurement, which need to be answered to achieve the promises of customer relationship marketing.

A company has to know who the customer is and how to define it. The answer isn’t easy because decision making might be scattered around the customer organization. The company has to know the ways the provider makes his presence known to the customer, each employee should interact with the customer in ways that are consistent with the company’s brand positioning. The depth and the duration of the relationship is important to know, as well as the information of who else participates in the relationship. Ideally, the company should know the network of providers and intermediaries that interact with its customers and prospects (Wymer 1999).

Wymer presented three important requirements for the company too. The business leverage in having detailed customer information has to exist and organization has to be able to act on the new information. He continues that there should be a continuous feedback from the market into the individual customer database to provide the possibility for the organization to learn from the repeated application of the information in marketing practice (Wymer 1999).

Model for Measuring

Different Different researchers have ended up into similar suggestion of the foundation for the measurement's model. Based on the literature review, a model with different categories for classifying different measures is vital (Bauer 2004). The Balanced Score-card's four different perspectives have been used widely (Mei-Yeh Fang, Lin 2006, Kim, Suh & Hwang 2003, Kim, Kim 2009).

Based on the literature review and earlier experiences from different researchers, Kim, Suh & Hwang chose Balanced Scorecard's idea for the foundation of their model (Kim, Suh & Hwang 2003). They justified the decision with following argumentations based on their literature review:

- Balanced Scorecard makes it possible to evaluate managerial activities with un-biased viewpoints by providing both financial and now-financial aspects
- Balanced Scorecard evaluates the integrated domain of business and technology
- Balanced Scorecard evaluates customer satisfaction which is very important in e-business
- Balanced Scorecard is a goal-oriented system. To evaluate CRM effectiveness in a consistent manner, a developer can consider the goals of CRM
- Balanced Scorecard is an action-oriented system. It can monitor and improve business performance

Kim, Suh & Hwang revised the Balanced Scorecards' four different perspectives and replaced them with the corresponding CRM components. A few years later, Kim and Kim had the same kind of results in their research (Kim, Kim 2009). They divided measurements into perspectives derived from Balanced Scorecard: Organizational per-formance perspective, Customer perspective, process perspective, and infrastructures perspective (Kim, Kim 2009).

Measures in organizational performance perspective indicate how corporate CRM strategy contributes to bottom-line improvement. Customer equity, profitability and lifetime value are key indicators here. Kim, Suh & Hwang combine retained users, sales and customer profitability into this category too. Customer perspective combines cus-tomer equity drivers, customer satisfaction measures and loyalty estimates into one cat-egory. Process perspective assesses the series of activities for acquiring, retaining and expanding the relationships with customers, focusing on the effective channel usage and operational excellence (Kim, Suh & Hwang 2003).

The last perspective is about infrastructure that contains four categories supporting the CRM in the organization: IT, human capital, strategic alignment and organization culture. It can be completed with Customer Knowledge that is focusing on understand-ing and analyzing the customer information (Kim, Suh & Hwang 2003).

Kim and Kim validate the model and key indicators in the research. They advocate the usage of the model for the people in charge of driving CRM initiatives by telling how various enterprise resources should be integrated to perform the CRM successfully. The model could help identifying what areas should be given more attention to (Kim, Kim 2009).

In addition to the Balanced Scorecard based model, Reinartz, Krafft and Hoyer pre-sented an idea for measuring CRM process with three different stages. It is based on the lifecycle of relationships, starting with initiation, continuing to maintenance and ending with relationship termination. Relationships evolve with distinct phases and companies should interact with customers and manage relationships differently at each stage (Reinartz, Krafft & Hoyer 2004). Also Kaplan and Norton divided the Customer Relationship Management processes to Customer Selection, Customer Acquisition, Customer Growth and Customer Retention seen in the figure 25 (Kaplan, Norton 2004c).

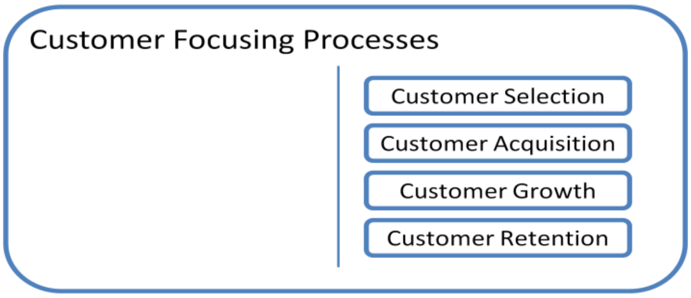

Figure 25: Customer Focusing Processes to be measured, adapted from (Kaplan, Norton 2004b, Reinartz, Krafft & Hoyer 2004)

Reinartz, Krafft and Hoyer summarized the core idea of the measurement of relationships: Building more relationships is not always better but building the right type of relationships is critical. Similar result can be found from other literature too (Reinartz, Krafft & Hoyer 2004, Ryals 2005).

Metrics

Metrics for measurement should be in line with the model and business objectives. William Band from Forrester Research presented a model for measuring CRM objectives (Band, Leaver & Rogan 2007). He formulated the idea for defining and linking CRM goals, strategies and tactics. CRM goals should quantify business goals by specifying how revenues should be increased or costs decreased. Strategies should articulate how the business goals are reached and tactics are linked to daily business. In turn, metrics are used to link the actions to daily business.

Same idea was presented when Aspinall, Nancarrow and Stone examined the customer retention measurement in sample companies. They show that although many companies did measure the retention, the definition and usage for the measurement was not as common. The result is that companies should articulate the retention as a business objective and define how to utilize the information and how to achieve improvements in it (Aspinall, Nancarrow & Stone 2001).

Examples of business strategies and goals from the Forrester article are shown in figure 26:

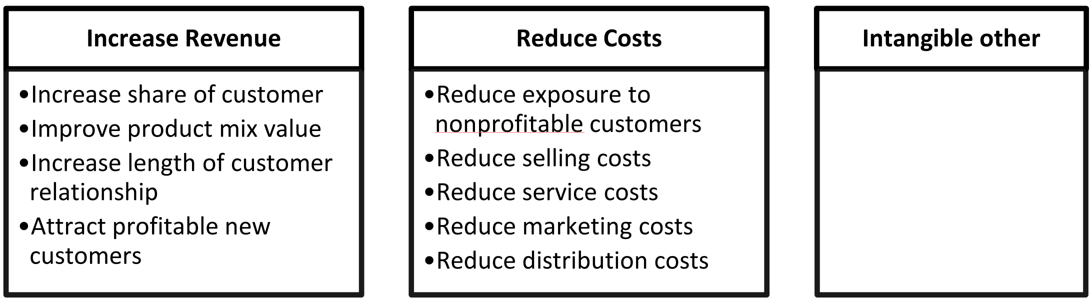

Figure 26: Examples of business strategies and goals, adapted from (Band, Leaver & Rogan 2007)

Rust, Moorman and Bhalla focused on the transformation of the marketing in their article (Rust, Moorman & Bhalla 2010). They highlight that metrics for following the performance should be focused on the customer too. Instead of measuring only product profitability, the customer profitability should be analyzed. Current sales measurement could be completed with customer lifetime value calculations and brand equity with customer equity. The current market share perspective could be analyzed with customer equity share (Rust, Moorman & Bhalla 2010).

The idea of focusing on the customer equity was presented also in Rust and Roland's article a few years before (Rust, Zeithaml & Lemon 2004). Lyanette Ryals presents how simple net present value based customer lifetime calculations lead to changes in customer management strategies, focusing more on profitable customer portfolio management (Ryals 2005).

Peppers and Rogers describe how the return on a customer is not just a metric, but a philosophy based on earning the trust of customers. The bonus is that this research shows that companies with the best reputations for customer advocacy get the most additional business. The simple reason is when a customer perceives a company to be acting in his own interests, then he benefits every time he deals with the company (Peppers, Rogers 2005).

The information for different level strategic decisions comes from different sources. Key sources for different measures are among others different customer databases, customer panels and surveys (Rust, Moorman & Bhalla 2010). This supports the idea of linking CRM tactics and metrics with overall business goals and strategies as in the Forrester Research's model (Band, Leaver & Rogan 2007).

Examples of CRM tactics specified in the Forrester article are shown in figure 27:

Marketing	**Sales**	**Service**
•Increase campaign response rate •Increase marketing sources revenue •Decrease lead generation cost •Decrease customer acquisition cost •Accelerate lead maturation	•Increase sales per rep •Shorten sales cycle •Increase average order size •Increase close rate •Increase conversion rate	•Increase customer retention •Increase customer service productivity •Reduce customer service costs •Decrease service response times

Figure 27: Examples of CRM tactics, adopted from (Band, Leaver & Rogan 2007)

Examples of CRM metrics specified in the Forrester article are shown in the figure 28:

Marketing Metrics

- Number of new campaigns
- New customer retention rates
- Number of responses by campaign
- Number of purchases by campaign
- Revenue generated by campaign
- Cost per interaction by campaign
- Number of new customers acquired by campaign
- Customer retention rate
- Number of new leads
- Number of customer referrals

Sales Metrics

- Number of propects
- Number of new customers
- Number of retaioned customers
- Number of open opportunities
- Close rate
- Renewal rate
- Number of sales calls
- Number of sales calls per opportunity
- Amount of new revenue
- Amount of recurring revenue
- Time-to-close by channel
- Sales stage and cycle duration

Service Metrics

- Cases closed same day
- Number of cases handled by agent
- Number of service calls
- Average number of service requesty by type
- Average time-to-resoultion
- Percentage complieance with service-level agreement
- Percentage of service renewals
- Customer satisfaction level
- Propensity for customer defection

Figure 28: Examples of CRM metrics, adopted from (Band, Leaver & Rogan 2007)

Specified business goals and objectives should be supported with strategies, which are then linked with tactical actions with the organizations management systems. The examples of CRM system related strategies, tactics and metrics could be used as a starting point for creating the accurate assessment practices (Band, Leaver & Rogan 2007).

2.5. Using Balanced Scorecard and CRM System to Improve Marketing Process Quality

Based on the literature review of related concepts, the overall view can be constructed. This section examines the connections between different concepts, presented in the figure 29.

Process Quality Management is about assessing processes and Balanced Scorecard gives multiple perspectives for measurement. Another approach to the Balanced Scorecard is its usage for implementing the strategy around the organization. In this way it also controls customer oriented processes. Actions related to customers can be stored electronically with a CRM system, which in turn is a viable source for Balanced Scorecard's measures. The loop is closed by the assessment of achieved results and updating original plans based on collected experiences as in the Plan-Do-Check-Act wheel.

The quality management has to be based on real outcomes of different processes and a recent study connects the CRM system to quality management and statistical process control. CRM system provides information of inputs and outputs of customer related processes (Ching-Chow Yang, Tsu-Ming Yeh 2009, Chun-Hsien Su, Tsai & Chu-Ling Hsu 2010). The Statistical Process Control is the application of statistical methods and techniques to assess the process based on the analysis of the output variances (Krajewski, Ritzman & Malhotra 2007).

Combining quality management with the Balanced Scorecard approach opens interesting dimensions. Causal relationships enhance quality programs by presenting how process improvements can link into strategic outcomes. Quality improvements in the internal perspective should improve outcome measures in customer perspective. Quality improvements can lead also to cost reduction, which should be cause improvements in financial perspective (Kaplan, Norton 2001a).

Literature has shown how Enterprise Resource Planning and Customer Relationship Management systems can supply a vital stream of measurement information for Balances Scorecard (Edwards 2001, Bauer 2004). The customer relationship management processes are also part of Strategy Maps concepts critical internal processes, creating and strengthening relationships with targeted customers. These processes are about selecting, acquiring, retaining and growing customer relationships, similar than seen in the theory of CRM (Kaplan, Norton 2004b, Reinartz, Krafft & Hoyer 2004).

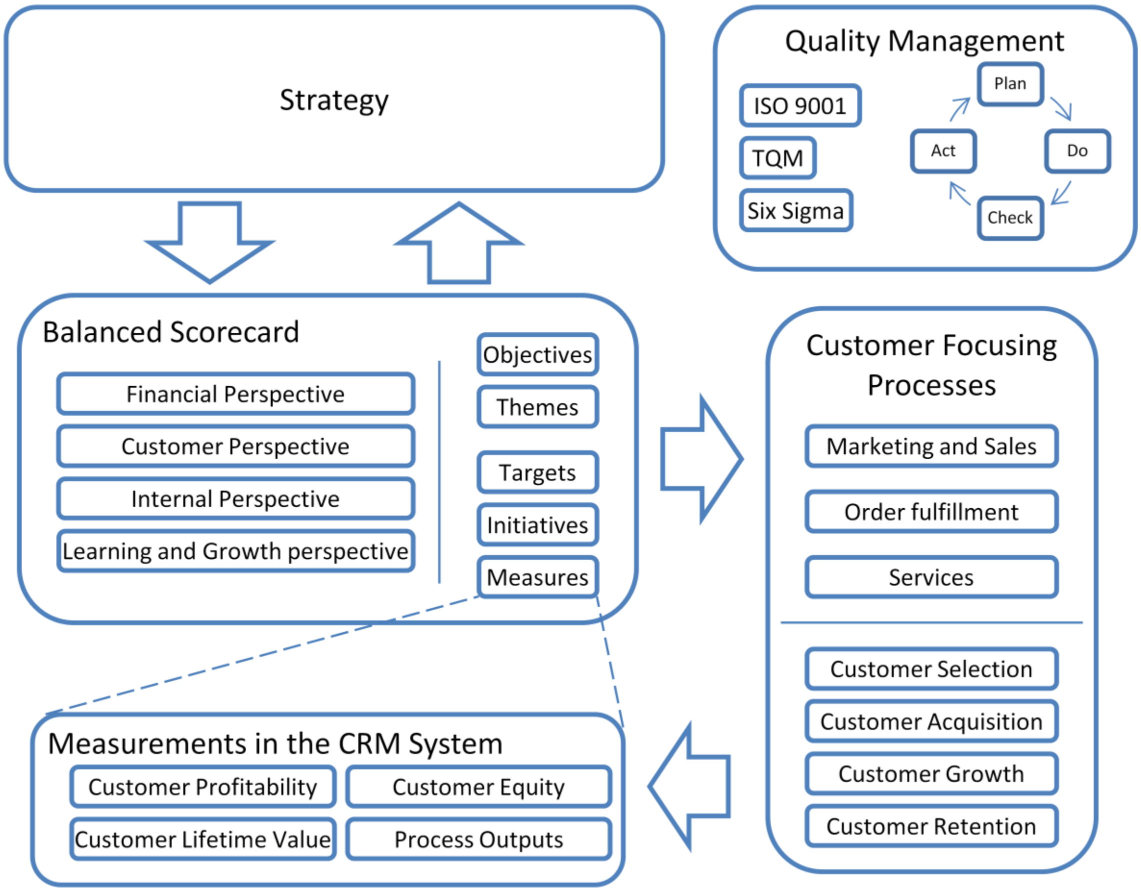

Figure 29: Quality Development of CRM Facilitated Business Processes

Yang and Yeh highlighted how employees could face confused demands if companies decide to implement different management tools simultaneously without proper integration and guidance. Integrating the balanced scorecard and other management tools to the same framework could prevent the confusion (Ching-Chow Yang, Tsu-Ming Yeh 2009).

3. Research Material and Methods

The third chapter presents the research and collected data. Case company is presented briefly in the end of the chapter too.

3.1. Presentation of the Research

3.1.1. Target and Structure of the Study

The focus of the work is to examine if the marketing process quality could be developed with balanced scorecard approach. The study is divided to following research questions

1) Is it possible to measure and develop the quality of Marketing Process with Balanced Scorecard?
2) Could the information in the CRM system be used as a source for measures in Balanced Scorecard?
3) How to use the gathered ideas in the Case Company?

The theory part in the previous chapter examined the literature and the empirical part tries to find answers to research questions from the case company. The qualitative research tries to find a description of the nature of a certain phenomenon and interpret it and concepts related to it. It helps verification of assumptions or theories and can be used in evaluation of practices (Leedy, Ormrod 2005). This approach has no strict limits for methods used for data collecting and analyzing. The qualitative approach to this research was discussed in the first chapter in detail.

3.1.2. Data collection methods

The used data collection methods in the study rely heavily on different interviews and examining the documentation of the current way of working. The present situation in the case company is reviewed by interviewing employees in managerial and specialist positions. The overall understanding of the marketing process goal setting and measurement needs are examined with a focus group discussion.

According to the literature, interviews in qualitative studies are often semi-structured and open-ended. They can relate to facts, beliefs, feelings, motives, behaviors or reasons for actions for feelings. Focus group discussion is slightly different approach to the interview. It is useful method in such situations, when time is limited or researcher is having difficulty interpreting what has observed. People might feel more comfortable talking in groups and the interaction among participants may be more informative (Leedy, Ormrod 2005, Lewis 2000).

Framework for Interviews

The framework for the interview is divided to three different parts. The first part focuses on the Balanced Scorecard concept in the case company, the second part examines the marketing process and in the third part the opinions of the CRM are investigated. Interviews in the case company were made with selected questions from this framework.

1. Balanced Scorecard in the case company

- What is the history of the Balanced Scorecard?
- What is the target of the Balanced Scorecard?
- What kinds of things are related to Balanced Scorecard concept?

- Who defines measures and how?
- Who sets targets and how?
- Who follows targets and how?
- What are the current sources of data?

2. Marketing process in the case company

- What kinds of tasks do marketing have and who does it?
- How do Balanced Scorecard and marketing process relate?
- Who sets targets for the marketing and how are they monitored?

3. CRM system in the case company

- What are the objectives of the CRM system?
- What is the role of customer relationship approach now and in the future

Focus Group Discussion

The focus group discussion consists of four groups of critical questions related to research questions. Discussion of each question group is limited to 20 minutes. The targets for the discussion are both to gather data and to increase the common awareness of discussed subject in the management level of the case company.

The practical arrangements for the discussion contain a pleasant environment, enough time and breaks. The discussion starts with the introduction of the research and then each group of questions is discussed separately, starting with a short motivation.

1. Balanced Scorecard in the Case Company

- What kind of targets does Balanced Scorecard have?
- What is measured with it?
- How is it used?

2. Marketing Process in the Case Company

- What kinds of tasks do marketing have?
- Who does marketing?
- What is marketing's relationship to account management and sales?

3. Target Setting and Monitoring of Marketing Process

- What kind of targets does marketing have?
- Who sets targets for the marketing?
- How are the targets monitored?

4. Role of the Current CRM System in the Case Company

- How is the current CRM system used?
- When should it be used?
- When it shouldn't be used?
- Which measures could use CRM as a source?
- If the currents system wouldn't work, what channels would be used for getting the information?

3.1.3. Data analysis

The data-analysis is conducted with the spiral approach suggested by Creswell (Leedy, Ormrod 2005). According to that concept, the first step is to organize the data and break it down into smaller bodies if needed. Then the entire data is perused to get a sense of what it contains. Based on the general view, different general categories and themes can be identified. During the last step hypothesis and propositions are generated and lined with summarized observations from the collected information.

3.2. Description of the data

There were 8 different interviews and one focus group discussion. Interviews and focus group discussion was based on the questionnaire presented in the previous chapter. There was not a strict format for interview or for discussion, resulting in a great deal of different statements and notifications. Another part of the gathered material consists of documented current scorecards, measures and processes descriptions.

Discussions and interview was first recorded and then lettered. The written data was categorized under different research questions and central themes were highlighted. The second part of the material was used to examine the needs for measurements. Gathered material from both discussions and documents was used as basis for the presentation of the case company’s backgrounds.

3.3. Backgrounds of the Case Company

This section describes the context of the study by presenting the background of the case company. It begins by showing the organization structure and continues by presenting the marketing process, Balanced Scorecard approach and CRM system.

3.3.1. The Case Company

The case company operates in the business-to-business markets. It develops products and services that make customers' core business processes more effective and enhance its customers' competitive advantage. Products are sold and used in about 100 different countries all around the world seen in the map presented in the figure 30.

Figure 30: The case company has customers all around the world

The company's organization structure has characteristics from a matrix organization structure. It has three different product lines, called segments, and departments for product development, marketing and different support tasks. Departments are called units. The parts of the organization that are located around the world focusing on the selling products are called area units. The case company structure has also been influenced by the virtual network organization.

3.3.2. Process Quality Management in the case company

The organization has an ISO quality certificate since the middle of the 1990s, after a few years of development. The certificate covers all corporation processes and functions, the way of working, which is documented and reviewed regularly.

The relationship between the Balanced Scorecard and quality management in the company is obvious. Both systems have the same principle they are focusing on: processes need to be known to implement and develop them. One approach is that these systems are different perspectives for the same target. The generic Quality Management measures used are for example comparisons of different lead times, analysis of error rates and feedback from customers.

3.3.3. Marketing Process in the case company

The main role of marketing in the case company is to support and help the organization to reach its business targets as seen in the figure 31. It is an integrating function in, tying together those marketing actions that different units and segments are performing.

Marketing management looks at the big picture. Different actions are done all over the organization and at the same time the management needs to follow how the whole process is performing. The company markets on a large scale and there might be persons who don't understand that they are part of marketing function. And it is not important, as long as the organization and management understands how different parts acts together and helps salespersons in their daily work.

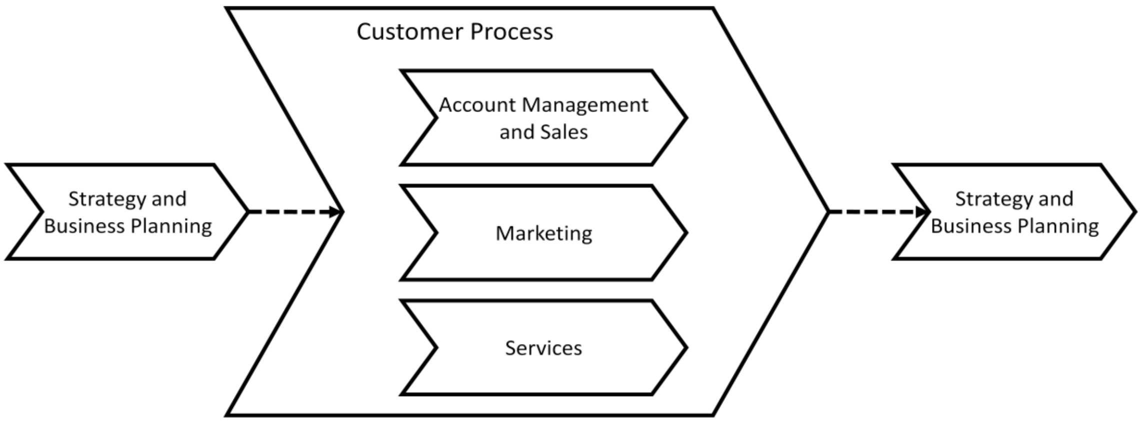

Figure 31: The marketing process in the case company

3.3.4. Measurement and strategic planning with Balanced Scorecard

The balanced scorecard is a strategic management tool that is used for communicating the strategy into the case company's organization. It has two different roles: from the company management and business segment perspective it is for strategic management and from business unit perspective it is it is for measuring the performance of teams and units.

The current scorecard is the second version of the Balanced Scorecard in the case company. The first generation was created in the beginning of the 21^{st} century. The connection between strategy, vision and balanced scorecard is stronger in the current version. It is used in the corporation level and the next step is to cascade it to different area units all around the world.

Four different perspectives are used in the case company in a way the theory suggests. The Scorecard implementation process starts when shareholders of the company set financial targets. From these numbers the company continues forward on the organization level scorecard. Then each team gets the common target, where they set their own targets based on their experience and expertise. This is the lowest level of the scorecard in the case company. The link between team scorecard and team members is important and everybody should see what kind of effect they have on the team's goals. The iterative scorecard creation process integrates those team- and unit level scorecards back to the organization level scorecard by mapping targets into common goals.

In the current implementation the scorecard helps the case company to see if the strategy works. Financial perspective is completed with Customer value presenting the real value for the customer and measures of critical internal processes show the potential problems in processes. The rolling perspective to strategy and Balanced Scorecard development supports the adaption of business plans based on the feedback and changes in the market.

The implementation process in the case company is still going on and implementation of the area unit's level scorecards would be the next logical step. The current way of working in the strategy communication is to create area action plans for area units based on the corporate level scorecard. The monitoring of both scorecard and action plans is done quarterly.

Another high-level measurement action used in the case company is the benchmarking of its actions with the competitors. It is important that the case company has a good performance but it is not enough, the performance has to be good compared to competitors.

3.3.5. CRM system

The history of the current CRM system in the case company dates back to the beginning of the 2000s when the first corporate level supported CRM system was presented. A few years later, experiences from the scattered databases launched the implementation of the current global system.

The current CRM system is used globally all over the case company. Information can be easily reported regarding all of the customers. The sales- and marketing processes are partly tied to the system supporting daily customer-oriented actions. The system has lots of unused potential. Information management system supporting daily work of both units and the management and reducing usage of different e-mail-excel-combinations is absolutely important.

The next step for the system is using it more analytically. The case company wants to understand how the lifecycle of customers starts and develops, especially in case of personnel changes. If the model of customers is well structured, company can measure how different relationships develop. At the same time CRM-system gives the company a common language that is used all over the organization.

4. Results and Analysis

The overall view of quality development of the marketing process was constructed in the second chapter, based on the literature review. The foundation for the view is that Balanced Scorecard gives multiple perspectives for measurement, supporting Process Quality Management. At the same time, the Balanced Scorecard can be used for implementing the strategy around the organization, controlling customer oriented processes. Actions related to customers can be stored electronically with a CRM system, which in turn is a viable source for Balanced Scorecard's measures. The loop was closed by the assessment of achieved results and updating original plans based on collected experiences as in the Plan-Do-Check-Act wheel. This is presented in the figure 32.

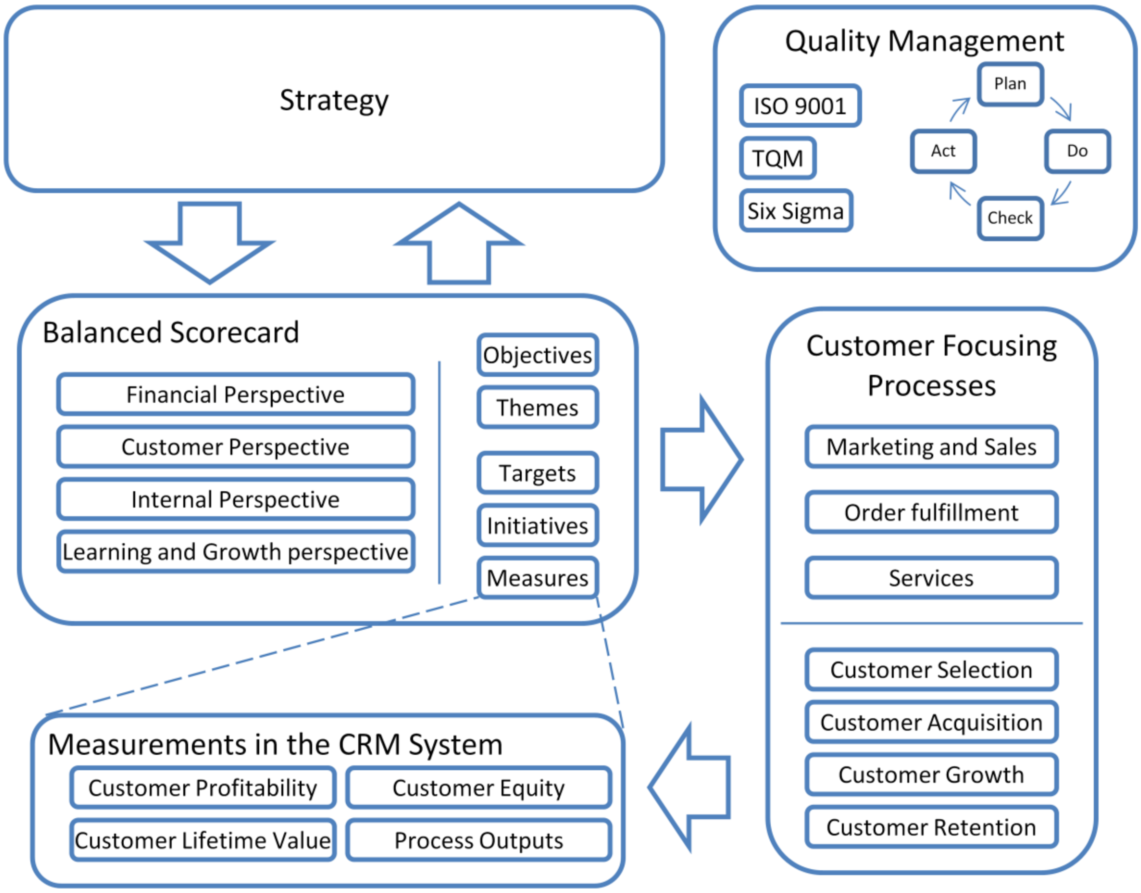

Figure 32: Quality Development of CRM Facilitated Business Processes

The literature view was supported by similar results found from the empirically gathered data. It seems that the Balanced Scorecard approach could be used to measure the Marketing processes and the CRM system could be used as a data source for measures. Because Balanced Scorecard is used as a tool for implementing the strategy, it gives the feedback good foundation for assessing marketing plans.

The implementation of this kind of connection elicits a great deal of requirements for all systems and ways of working. This chapter examines those requirements and compares observations with the theoretical perspective.

Results from the collected data are categorized to answer the research questions:

1) Is it possible to measure and develop the quality of Marketing Process with Balanced Scorecard?
2) Could the information in the CRM system be used as a source for measures in Balanced Scorecard?
3) How to use the gathered ideas in the Case Company?

4.1. Measuring Marketing Process with the Balanced Scorecard

As seen in the previous chapter, the measurement system in the studied company contains Balanced Scorecard for the strategy implementation, which is used as a foundation for annual action planning. The quarterly navigation is used for monitoring the performance of different units.

The idea of measuring marketing process performance with balanced scorecard approach was examined in all interviews. The general view in the discussions was positive. There are certain strengths and challenges in the approach and those are reviewed in this chapter. Requirements for the implementation are presented in the chapter 4.3

4.1.1. Strengths

The biggest strength of the Balanced Scorecard for the case company is how it is used in the strategy development. The strategy work is learning by doing and this approach supports it by forcing everyone to participate in it. The Balanced Scorecard is a tool for annual planning, linking daily actions to the strategy with the action plan. Common goals motivate people to take the extra step needed to achieve better results. The literature of the marketing performance management highlights marketing performance measurement's effect on companies' performance and marketing's stature within the firm (O'Sullivan, Abela 2007).

Balanced Scorecard is used in the corporation level in the case company. The cooperation between units in the iterative process highlights potential problems and conflicts and forces the case company to make an analysis of its current resource potentials compared to the vision. As the theory shows, combining different management systems prevents employees' confusion (Ching-Chow Yang, Tsu-Ming Yeh 2009). Causal relationships of the Strategy Maps also enhance quality programs by presenting how process improvements can link into strategic outcomes (Kaplan, Norton 2001a).

The quarterly monitoring together with different units communicates what they have been doing and how the strategy is implemented all over the case company. Kaplan and Norton show how Balanced Scorecard approach and especially the Strategy Maps concept describes the logic of the strategy (Kaplan, Norton 2004c).

The current implementation of the Balanced Scorecard in the case company's organization unit is for controlling its own actions and measuring performance of team members, not for measuring how the entire business area acts on the markets and develops its position. It would be good to have both types of scorecards, one for measuring the teams' actions and one for controlling the whole marketing process. Mapping balanced scorecards of different units together is important, but the risk is that the scorecard for whole process gets so wide that it is impossible to build. An integrated view of function could help the case company to understand how its actions support achieving business results, help the sales process and have impact on the company's position in the markets. Strategic scorecard could help marketing process to build same kind of picture of case company all over the world.

4.1.2. Challenges

There are three different kinds of challenges for using the Balanced Scorecard approach for measuring marketing performance.

The first category of challenges is about the ongoing implementation processes and the current implication of the Balanced Scorecard. The approach is not used in all units, making the communication and strategy implementation harder. Action planning might have various results, being only partly derived from the strategy. Specified resources, time, commitment and lots of communication are needed before it is totally implemented. The time delay between different planning in the corporation level and implementation in the units is remarkable and some of the projects implemented in the first units two years ago might be still under work in other units.

The cascading model of the scorecards used in the case company causes challenges in mapping scorecards of different units together. Many smaller actions made all around the organization have an effect in bigger targets and those should be aggregated to achieve the big picture to help the management to know the wide view of marketing, containing all parts of customer communication made. At the same time different balanced scorecards of various units are not easily found.

The second group of challenges is related to the marketing process and current way of working. In the ongoing implementation process core processes are defined differently than in other documentation and daily working. For example the marketing process is not defined in details enough, resulting in the minor conflicts and adapting challenges in daily work.

The fact is that the marketing function is scattered around the organization and the communicating its objectives and measures is hard. Another challenge is that the definition on marketing varies between different units. There was no clear understanding of the process in different discussion either. The overall global target setting of the whole marketing process is challenging and clear instructions are missing.

The third group of challenges is related to the measures. The knowledge is scattered around the accounting system, CRM and different personal data storages and combining those sources effectively to assess if daily actions have had positive effect on the company’s revenue is demanding. The critique by Marr and Adams (2004) is related to this challenge. The concept of Balanced Scorecard gives an incomplete view of intangible assets, leaving the both customer relationships outside. At the same time, the time span of actions in the markets makes it even harder. For example, marketing actions for the brand image might take more than one year to have influence in measures.

4.2. Using CRM System as a Source of Data

4.2.1. Strengths

Customer Relationship Management system has multiple strengths when used as a data source for the Balanced Scorecard. It supplies a vital stream of measurement information (Edwards 2001, Bauer 2004). The same holds true for the quality managements that benefits from real outcomes of customer processes (Ching-Chow Yang, Tsu-Ming Yeh 2009, Chun-Hsien Su, Tsai & Chu-Ling Hsu 2010).

The CRM system used in daily work gives a common language for the company and supports process implementations. It defines the phases of the customer relationships and related actions and describes used processes. CRM system could model and store the local view of customers in different areas. Ideally, the company could know the network of providers and intermediaries that interact with its customers and prospects. In such a way, CRM system could be a marketer's best friend that helps building business cases highlighting marketing relationship between marketing actions and desired outcomes (Winer 2001, Crosby, Johnson 2001, Wymer 1999).

The CRM system is used daily in the customer oriented actions around the case company, and the information of those actions is recorded electrically. Also the customer data of both old and new customers as well as prospects is stored in the system and marketing and sales processes partly tied into the system update that data regularly.

Through analysis of actions related to different customers, knowing their size and relations, their value to the company could be measured. However, customers of the case company are well diversified and there are no dominant players who require complex calculations.

4.2.2. Challenges

Challenges of using the CRM system as a source for the measures of the Balanced Scorecard in the case company are related to two different main categories:

1) The system is used in various ways in different units and
2) Capabilities of the current system are limited

Challenges in the first category originate from various problems. The information system can be – and is – used in multiple ways in the daily work. Besides differences in the knowledge of individual users, the differences between various units are enormous. And the gap is at its widest between function management and front-line employees who are using the system daily. Based on these challenges, part of the communication is passing the system. The situation gets not improve when spreadsheet calculations and informal personal communication has an important role in the reporting. The CRM system should support formal reporting but it doesn't because of all data is not there.

The reason there are so many ways to use the system are partly because there are no common process definitions or targets in the organization. The risk for understanding things differently causes challenges in the data and how it can be applied. Challenges in the CRM implementation are widely examined in the research. Pedron and Saccol present a good question: There seems to be a solution being offered; what is the problem to solve (Pedron, Saccol 2009)? They continue by highlighting that managers have to be very realistic about what to expect in the short and in the long term from CRM system.

The second category consists of challenges related to limited capabilities of the current system. One of the reasons for problems in the earlier category is that the system is not the perfect match for the requirements of the daily working, complicating the user adaption. For example, the system is not planned to be used in accounting. This fact causes problems in financial reporting. Not all information is available in the CRM system, for example the awareness of the company is hard to measure from the customer data.

The information system has some problems in its data model. It means that reporting historical trends is challenging and in some cases not even possible. One example is how the comparison of open opportunities size over history is not possible. The reporting possibilities are also limited because of the same reason. There might also be potential challenges and problems in reporting if there is the possibility of easily misunderstand the report.

4.3. Requirements for the implementation

The updates and development ideas and requirements covered in the discussions are presented and categorized to four different themes: Requirements for the organization, requirements for the Balanced Scorecard concept, requirements for the measuring, and requirements for the CRM system development.

4.3.1. Requirements for the organization

There is a great deal of requirements for the organization. One common factor for the requirements found in the empirical part is the diverse marketing process definition. Rigby and Ledingham articulate the challenge in their study clearly: It is important to have clear customer strategies and supporting organizational structure before starting the implementation of new technology. The business has to have a clear need for better information and vision when it’s good enough (Rigby, Ledingham 2004).

The process of customer-oriented actions and the relationships and roles of marketing with different parts in the organization and resellers should be clarified. Iriana and Buttle note that even if the organization had not developed a formal CRM strategy, it would have a de facto CRM strategy with people, process and technology used for the management of customer relationships (Iriana, Buttle 2006). That is true also in the case company – the CRM system has been used for years for a great deal of customer-oriented actions. Well-known common terms based on the real daily work should be used all over the company to describe common phases of processes and it could be tied to tools used daily.

Rust, Moorman and Bhalla present the idea of customer centered marketing transforming the marketing department into a customer department and focusing on the customer all over the organization. In such a case, combining CRM with customer department results in bringing IT and analytics skills into marketing department. In the case company’s situation the good communication and knowledge sharing would benefit the whole organization (Rust, Moorman & Bhalla 2010). Ideally, the company should know the network of providers and intermediaries that interact with its customers and prospects (Wymer 1999).

4.3.2. Requirements for the Balanced Scorecard concept

Many requirements for the Balanced Scorecard development were found in discussions. It became obvious that this study is one phase of the implementation of the Balanced Scorecard concept in the case company. The main requirement for the concept is to define CRM system to be used as a source for certain metrics in the marketing process performance measurement and develop a process to assess that information.

The next step needed is to expand the concept on some extends to the rest of the organization because the similar foundation for measuring performance supports benchmarking different units, which in turn could help new motivation and rewarding possibilities. Similar forms of information help mapping scorecards together by revising them regularly together. The working performance measuring and benchmarking system could help to detect problems and react to those sooner.

Empirical data gathered revealed that the Balanced Scorecard concept needs to be highlighted. There are logical links between different perspectives, starting from learning and growth perspective and heading to financial perspective but those links are not visible enough. Requirements for following the long-run targets with short-run measures and measuring different parts of processes to control the “grey area” are related to the same Balanced Scorecard concept. Aggregated measures support the company to control that its resources are used wisely.

The case company needs to map different units’ scorecard together. The Marketing Function Scorecard could close the huge gap between daily marketing actions in areas and global vision. It could to be used for measuring the marketing unit performance development but there has be some possibilities to estimate the development of the whole business marketing actions. One resolution proposed is to map and check the targets in the scorecards of different units regularly.

Rust et al pinpointed how strategies lead to tactical marketing actions (Rust et al. 2004). Seggie, Cavusgil & Phelan had similar observations, they state that the causal linkage between marketing actions and revenues need to be defined to contact the marketing investment and financial outcome, (Seggie, Cavusgil & Phelan 2007). Good measures are needed but they need to be related to targets and baselines. By looking at the dashboard it could be said what is the current level of something but it does not say or know where to go. The Balanced Scorecard for marketing process of function could help that challenge. An example of the Strategy map contacted to Balanced Scorecard and Action plan based on the theory presented in the second chapter can be seen in the figure 33.

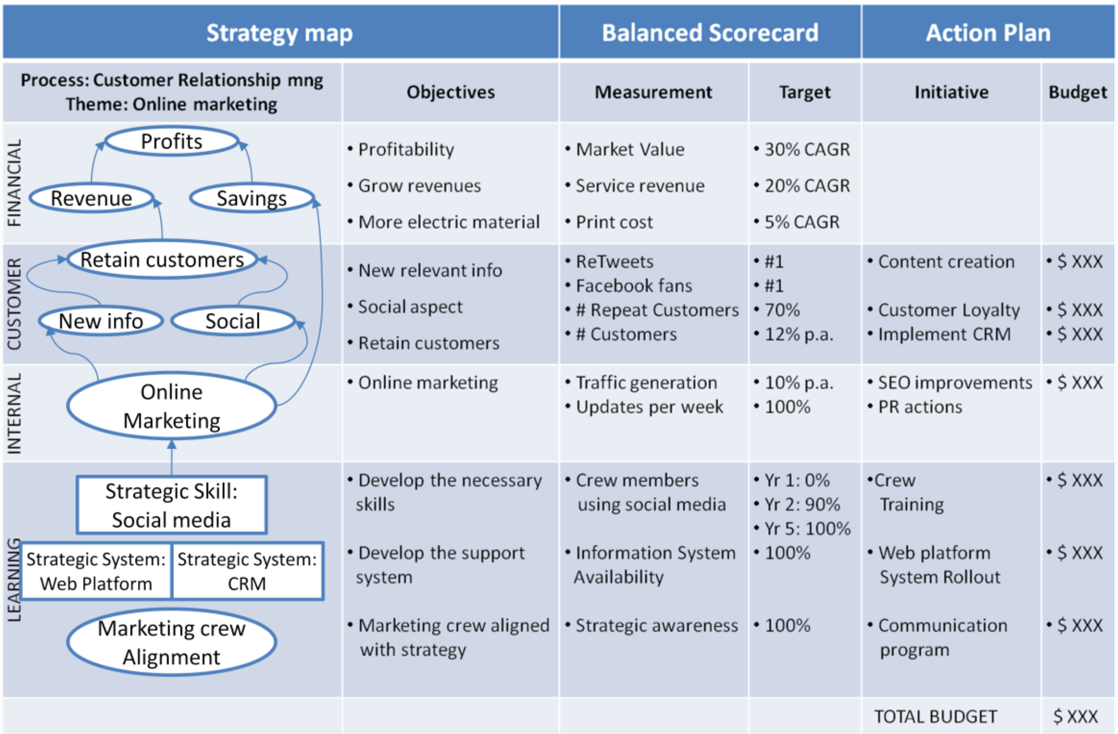

Figure 33: Example of a Strategy Map linked wih Balanced Scorecard, adapted from (Kaplan, Norton 2004c)

The benchmarking was discussed widely, not only between performance of different units but also benchmarking the company with its competitors. From the performance management perspective, it is enough to be better than competitors. Overall, the development of markets and the strategic position of the company are important and the Balanced Scorecard should support that perspective.

4.3.3. Requirements for measuring

Two different main categories for requirement of measuring were found during discussions: objectives of the measurement and the measures. The literature of the measuring gives also a sound framework for measuring. Based on these perspectives, final requirements for measures are constructed in the end of this section.

Objectives of the measurement

The Hawthorne effect refers to the tendency of people who are observed to behave differently than they would other do (Huczynski, Buchanan 2007). This old lesson should be remembered when thinking about the performance measurement – it needs to be part of daily routines.

The objective of measurements depends on the unit in the case company. Team level measurement is more for assessing the team performance and the focus is on the daily actions. Another level is in the management level, where the focus is instead of managing tasks in analyzing and following processes. It is not important for the management of the case company to know numbers of one specific task but the whole view of the related process.

One example of process view is the sales and marketing process management. The case company needs to continue developing tools for measuring the shape of the sales process. Different steps need to be balanced and the action plan driving for decisions could be adjusted based on the feedback. This kind of monitoring could be used as a foundation for the effective benchmarking of different units too.

Requirements for Measures from gathered data

The second category of the requirements for measuring is about the measures. The case company uses a wide set of measures and the strength of approved measures cannot be underestimated. Sales numbers are followed generally with four types of measures

1) Number of opportunities by different segments and type of customers
2) Opportunity values by different segments and type of customers
3) Values of different opportunities in different sales process phases, compared to four earlier quarters
4) The numbers of different products sold during last 12 months

The new customer generation process is monitored with lead conversion numbers

1) Number of leads generated per quarter
2) The analysis of the leads generated for different segments
3) Number of contacts and accounts created from leads during last four quarters
4) Number of opportunities generated from leads during last four quarters
5) The processing time of leads
6) The source of new leads

Requirements for the additional metrics from gathered data contains few important new measure requirements.

- Different lead times are important process measures that need be monitored to guarantee appropriate service level
- The update of the opportunity percentage to be qualitative
- Monitoring should be able to be based on various segmentation information too

- The more strategic and qualitative information could be gathered, for example a qualitative strategic value of the customer of the probability of the sales opportunity
- There are many potential touch points for asking customers information such as why did they choose the product they selected
- Average numbers of actions by different segments or customer types

The final requirement for the measuring from discussions in the case company is that the monitoring of the performance and reporting has to be easy and contain analyzed information based on the aggregated data from daily actions around the organization.

Present perspective from literature of marketing performance measurement

The current research of marketing performance measurement is focusing on the marketing assets and its drivers. Various studies state that marketing assets presents unrealized cash flows and divide it into brand equity and customer equity (Rust et al. 2004, Ahonen, Rautakorpi 2008, Ambler 2001, Kumar, Shah 2009). Lyanette Ryals presents how simple net present value based customer lifetime calculations lead to changes in customer management strategies, focusing more on profitable customer portfolio management (Ryals 2005).

Rust, Moorman and Bhalla highlight that metrics for following the performance should be focused on the customer. Instead of measuring only product profitability, the customer profitability should be analyzed. Current sales measurement could be completed with customer lifetime value calculations and brand equity with customer equity (Rust, Moorman & Bhalla 2010).

Kim and Kim divided measurements into perspectives conducted from the Balanced Scorecard: Organizational performance perspective, Customer perspective, process perspective, and infrastructures perspective (Kim, Kim 2009).

Measures in organizational performance perspective indicate how corporate CRM strategy contributes to bottom-line improvement. Customer equity, profitability and lifetime value are key indicators here (Kim, Kim 2009). Kim, Suh & Hwang combine retained users, sales and customer profitability into this category too. Customer perspective combines customer equity drivers, customer satisfaction measures and loyalty estimates into one category. Process perspective assesses the series of activities for acquiring, retaining and expanding the relationships with customers, focusing on the effective channel usage and operational excellence (Kim, Suh & Hwang 2003).

The last perspective is about infrastructure that contains four categories supporting the CRM in the organization: IT, human capital, strategic alignment and organization culture. It can be completed with Customer Knowledge that is focusing on understanding and analyzing the customer information (Kim, Kim 2009).

Seggie, Cavusgil & Phelan developed a framework consisting of seven different dimensions, from which marketing metrics should be developed (Seggie, Cavusgil & Phelan 2007):

1. Address the financial value of intangible assets
2. Have a forward-looking instead of historical perspective
3. Highlight the long-term gains
4. Be able to incorporate the data with a micro-level granularity
5. Provide a value that allows comparison with competitors

6. Causally link marketing investments to financial outcomes
7. Have an objective view to measures

Requirements for marketing performance measurement

The final requirements for measures can be collected by aligning the case company's current metrics and requirements for new measures with the literature's suggestions.

1) The monitoring of the performance and reporting has to be easy and contain analyzed information based on the aggregated data from daily actions around the organization.
2) Varied possibilities to do the segmentation and qualitative analysis of different customers and sales opportunities

Measures are divided into four different categories derived from the Balanced Scorecard to maintain possibilities for mapping measures to the case company's strategic planning

1) The performance perspective contains customer equity, retained customers, customer profitability and sales figures
2) The customer perspective combines customer equity drivers and customer satisfaction measures
3) The process perspective contains the holistic view of different phases in the marketing and sales process for acquiring, retaining and expanding the relationships with customers. Statistical Process Control presented in the second chapter provides effective approaches to the process perspective.
4) The learning and innovation perspective contains customer knowledge that is focusing on understanding customer information

4.3.4. Requirements for the CRM development

There are three central requirements for the CRM development. The first one is the need for changes in the system architecture, because of current challenges and limits in reporting historical data. Anything having changing value over time, such as size of the opportunity, need to be stored in external data storage, where it could be used for filling anything else than historical reporting.

The second requirement relates to the current way of working with the system and is connected with requirements for the organization. The used processes that CRM system is supporting have various definitions around the case company. They need to be clarified and unified. At the same time the problem of common language can be managed – the tool used could supply the vocabulary. The whole organization, including the top management, need to know what the potentials of the system are, and who it should be used. This could result in better common usage and better data quality. It is useful to know that the current approach to CRM is probably the operational CRM defined by Iriana and Buttle (2006). Using it more strategically needs targeted implementation process.

The CRM system can support common reporting processes. It could provide data in a specified form, also suggested in another context of the CRM development in the case company. Including targets in the system could help the reporting, and link tasks to the strategy. As heard in one discussion "We could put targets into the same system people are working with. Not like ‘now we have targets and plans in excel and then let’s work’.”

The system needs to be designed to be able to use in daily working. It has to provide potential tools to help complete the task and at the same time processes could force to use the tool. It needs to help in grouping customers by different segments and provide a real picture of the correct customer process. But the most important perspective is that the use of the system has to be easy and support daily work.

The third requirement involves developing the current system to better match the needs of Balanced Scorecard usage and marketing process performance measurement. It is about customizing the system.

Customizing the CRM system

There are two different use cases for the new requirements. The first one is about setting global level targets for the metrics of Balanced Scorecard that could be measured in the CRM system. It starts when the defined team updates and creates the scorecard for the global marketing function. Based on the scorecard the needed targets and limits are set to a new specified Scorecard in the CRM system. The company’s marketing process performance can be measured easily in a formal way by opening the report showing current situation compared to targets. Some statistical calculations to remove potential skew are needed to prepare useful reports.

The second use-case is for cascading the global scorecard further to next units. The process for filling in targets is similar, only persons are different. Now one of the global functions management team is developing objectives with the unit next in the organization’s hierarchy. The company’s performance can be measured as easily as in the first use case.

It is important to understand that the process for the development of the balanced scorecard has to exist. The usage of CRM system is a tool that supports the regularly repeating sound process. Drafts of the scorecard can be seen in three figures below.

The figure 34 shows how there could be different scorecards defined for different units in the organization, based on the cascading process of the Balanced Scorecard implementation.

Figure 34: Different Scorecards in the CRM system

The figure 35 describes the contents of one specific scorecard. It is related to different units i.e. contains targets for them. All different perspectives of the Balanced Scorecard can be seen but not all of the measures can be assessed based on the data on the CRM system.

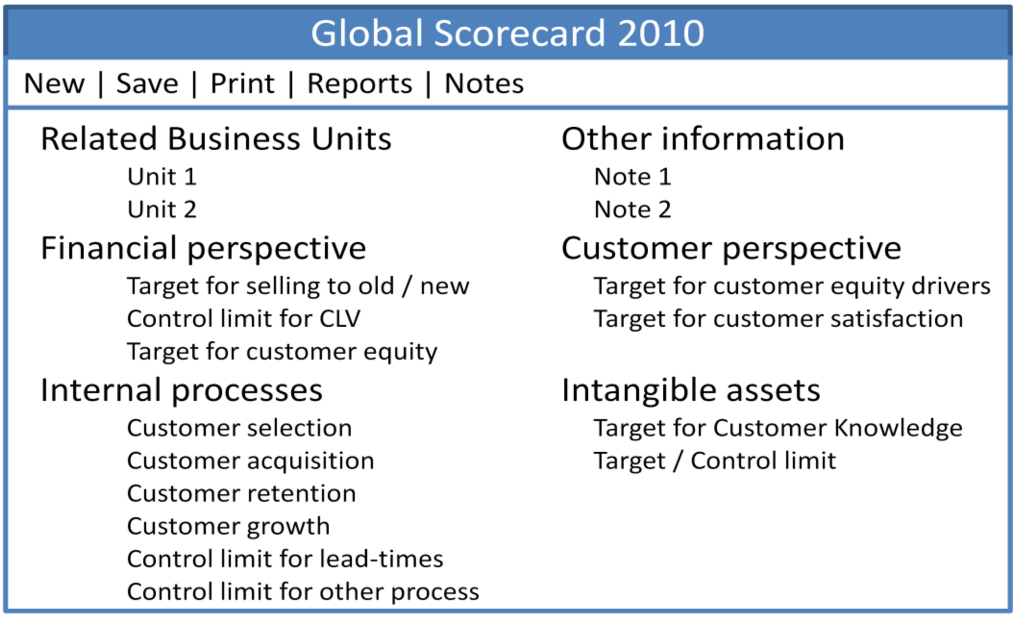

Figure 35: Target setting of the Scorecard in the CRM system

The figure 36 shows central requirements for the formal reporting. The shape of the current sales- and marketing process can be seen from the process overview diagram showing on the x-axis the average lead-time of each step and on the y-axis the amount of different units in each step.

The historical comparison with enough long time horizons is important to see the pattern of the buying behavior and the development of the markets. The historical trend line with control limits for lead times is essential for the analysis of the quality the customer experiences.

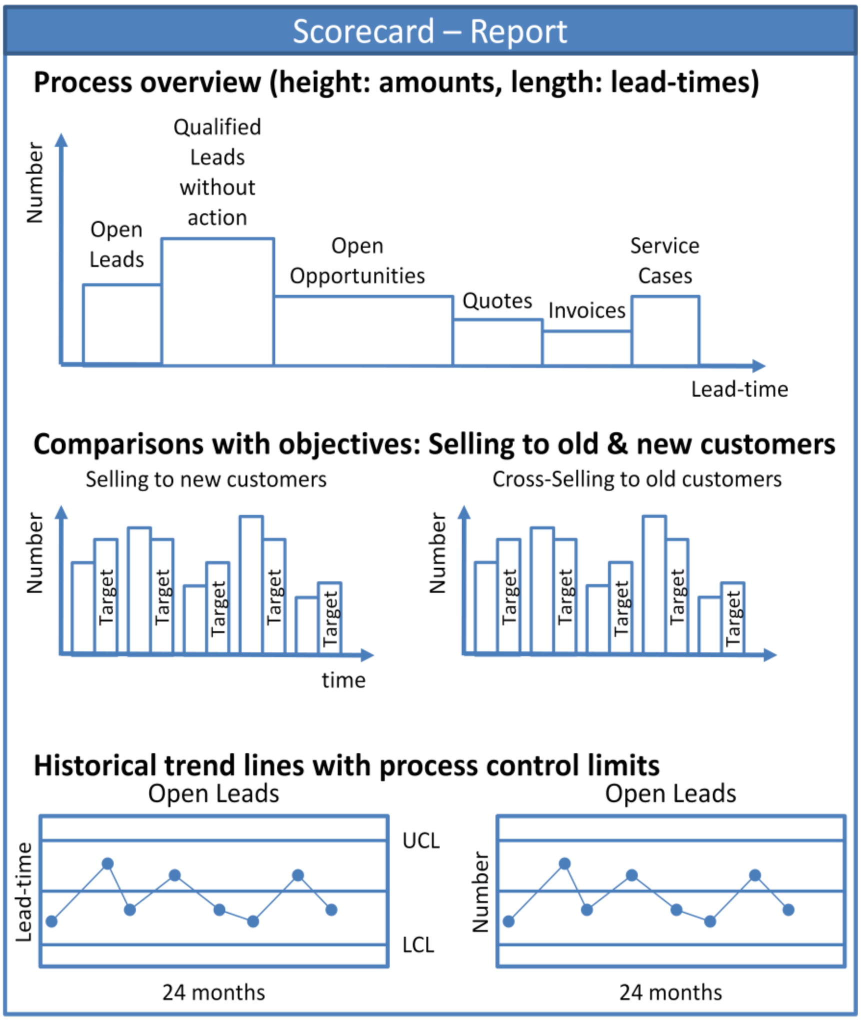

Figure 36: Example of a formal Scorecard report from CRM system

5. Summary and Conclusions

The findings of the study based both on the theoretical literature review and findings from the research on the case company support combining Balanced Scorecard approach with CRM system to measure and direct the marketing process to achieve better performance and quality.

The most important requirements for the implementation are related to the way of working. There has to be a sound process supporting the regular assessment of Balanced Scorecard and well defined processes for customer-oriented processes. The CRM system needs to support the target setting and reporting over the time to provide an easy access to data, and to maintain the help the daily work in different units of the organization.

5.1. Discussion

The interesting topic is how companies can manage data effectively to achieve competitive advantage. According to the recent article in The Economist this challenge will become more important in the future (Economist 2010). Companies are under pressure to develop their way of working and different systems supporting business. Researchers have been helping companies to find out effective ways for solving challenges and providing new frameworks and models to boost the daily working.

This study started with a wide literature review for measuring marketing process performance and developing its quality with Balanced Scorecard and CRM system. Results were encouraging and different links between different tools exist. Based on the literature review a model for combining examined tools was found. The clear definition for the customer-oriented process definition was hard to find and it was combined with different approaches, relying mostly in the Porter’s value chain definition (Grant 2008). The same process was not well defined in the case company and it might have different interpretations in different situations.

There are challenges in combining complex systems and the one good way for company to pass potential problems is to have well defined processes, which is one of the main principles of ISO 9000 standard family (Suomen Standardoisoimisliitto 2008, International Standards Office 2000a, International Standards Office 2000b).

The empirical part of the study focused on one international business to business company. The material for the qualitative study was collected from different documentations, interviews and discussion. Interesting ideas were gathered and they were supporting the same model that was found from the literature.

The results of the study consists of recommendations and collected requirements how the case company could take first steps to measure the customer-oriented marketing processes in a formal way, based on the accurate information generated by partly automated processes all around the company.

5.2. Conclusions

In order to measure and develop marketing process performance and quality with the Balanced Scorecard and CRM system, a model for combining those concepts was examined. The process quality management concept provides effective principles to develop process performance. The Balanced Scorecard was originally developed for balances measuring by Kaplan and Norton year 1992 (Kaplan, Norton 1992) and since that, the idea has developed further to be used in communicating the organization strategy (Kaplan, Norton 2008). Combining it with Customer Relationship Management system the daily actions of customer-oriented actions can be analyzed and linked to strategy assessment as seen in the Figure 29: Quality Development of CRM Facilitated Business Processes.

The research questions stated at the beginning of the study and following conclusions can be made:

Is it possible to measure and develop the quality of Marketing Process with Balanced Scorecard?

As the Balanced Scorecard is a powerful tool for both measuring and communicating the strategy it can be used to measure and develop the quality of Marketing Process. Both theory and empirical observations support this. The central challenge is that there has to be a sound process for the Balanced Scorecard and the measured marketing processes need to be defined.

Could the information in the CRM system be used as a source for measures in Balanced Scorecard?

Based on the literature review different IT systems provide a vital source for performance measurements systems. CRM can supply the real output information of customer-oriented processes. Two main requirements for the connection are that the technology capabilities for providing historical data and the system need to be used similarly in different parts of the organization.

How to use the gathered ideas in the Case Company?

The combination of systems revealed a great deal of requirements for the case company. The organization need to have proper processes for all of the concepts. There has to be a working way of using balanced scorecard that directs the well defined marketing process. The CRM system need to be capable of gathering and processing historical data and the system needs to be used similarly in different areas. The last recommendation for the case company is about measuring the marketing performance that was collected from both the research recommendations and empirical data.

5.3. Limitations and Future Study

This research is based on the qualitative approach that has known potential problems with the subjective and biased opinions of the researchers. Results of the qualitative study will be influenced by the researcher's opinions and interpretations (Leedy, Ormrod 2005). That aspect was notified during the study and the effects was tried to minimize by collecting data from multiple sources and looking at it from different perspectives with as objective approach as possible.

There are still potential biases in the study. The results of the study might be skewed because there was only one case company, and only selected parts of its management participated the discussions. The examined concept was not either implemented or used in daily work. One important limit is that there were no daily users for the CRM system participating. Though there were multiple sources and different perspectives for the data, only one person has been composing it. It causes potential risks for relying too much on subjective opinions.

The theoretical background supported the model but limits in theories behind might cause limits in this study too. The customer-oriented process definition was hard to find and it was combined from different approaches, relying in Porter's value chain definition (Grant 2008). That same area was not well covered in the case company and it might have different interpretations.

The results of the study raise an interesting question if companies could really benefit from combining different systems. Another interesting area for future research could be the analysis of company's marketing process based on a questionnaire through the company. The definition of the real marketing process in the company could open different perspectives for the quality development and target setting.

6. References:

Accounting Today 2008, "Products to Watch in 2009", *Accounting Today,* , pp. 22-24.

Ahonen, J. & Rautakorpi, P. 2008, *Arvoketjun Johtaminen,* 1st edn, WS Bookwell Oy, Porvoo.

Ambler, T. 2007, "Call centres, CRM and cows", *Market Leader,* , no. 39, pp. 33-37.

Ambler, T. 2001, "What Does Marketing Success Look Like?", *Marketing Management,* vol. 10, no. 1, pp. 12-18.

Ambler, T. & Roberts, J.H. 2008, "Assessing marketing performance: don't settle for a silver metric", *Journal of Marketing Management,* vol. 24, no. 7, pp. 733-750.

Aspinall, E., Nancarrow, C. & Stone, M. 2001, "The meaning and measurement of customer retention", *Journal of Targeting, Measurement & Analysis for Marketing,* vol. 10, no. 1, pp. 79.

Band, W., Leaver, S.C. & Rogan, M.A. 2007, *The Right CRM Metrics For Your Organization*, Forrester Research, Inc, Technology Square, Cambridge.

Bauer, K. 2004, "The KPI Profiler: CRM Case Study", *DM Review,* vol. 14, no. 11, pp. 18-19.

Bland, V. 2003, "Ten ways to improve your CRM", *NZ Business,* vol. 17, no. 2, pp. 31.

Brewer, P. 2002, "Putting Strategy into the Balanced Scorecard", *Strategic Finance,* vol. 83, no. 7, pp. 44-52.

Bukh, P.N. & Malmi, T. 2005, "Re-examining the cause-and-effect principle of the Balanced Scorecard" in *Accounting in Scandinavia - The Norhtern Light*, eds. S. Jönsson & J. Mouritsen, 1st edn, Liber and Copenhagen Business School Press, Copenhagen, pp. 87-113.

Chavan, M. 2009, "The balanced scorecard: a new challenge", *Journal of Management Development,* vol. 28, no. 5, pp. 393-406.

Ching-Chow Yang 2009, "Development of an integrated model of a business excellence system", *Total Quality Management & Business Excellence,* vol. 20, no. 9, pp. 931-944.

Ching-Chow Yang & Tsu-Ming Yeh 2009, "An integrated implementation model of strategic planning, BSC and Hoshin management", *Total Quality Management & Business Excellence,* vol. 20, no. 9, pp. 989-1002.

Chun-Hsien Su, Tsai, A. & Chu-Ling Hsu 2010, "The TQM extension: Total customer relationship management", *Total Quality Management & Business Excellence,* vol. 21, no. 1, pp. 79-92.

Crosby, L.A. & Johnson, S.L. 2001, "High Performance Marketing in the CRM Era", *Marketing Management*, vol. 10, no. 3, pp. 10-11.

Day, G.S. 1994, "The capabilities of market-driven organizations", *Journal of Marketing*, vol. 58, no. 4, pp. 37.

DeBusk, G.K. & Crabtree, A.D. 2006, "Does the Balanced Scorecard Improve Performance?", *Management Accounting Quarterly*, vol. 8, no. 1, pp. 44-48.

Economist 2010, "A different game", *Economist*, vol. 394, no. 8671, pp. 6-8.

Edwards, J.B. 2001, "ERP, Balanced Scorecard, and IT: How Do They Fit Together?", *Journal of Corporate Accounting & Finance (Wiley)*, vol. 12, no. 5, pp. 3-12.

Eisenhardt, K.M. 1989, "Building Theories from Case Study Research", *Academy of Management Review*, vol. 14, no. 4, pp. 532-550.

Fisher, N.I. & Nair, V.N. 2009, "Quality management and quality practice: Perspectives on their history and their future", *Applied Stochastic Models in Business & Industry*, vol. 25, no. 1, pp. 1-28.

Frösen, J. 2008, *Measuring marketing performance from a shareholder perspective: the use of marketing metrics in Finnish companies*.

Grant, R.M. 2008, *Contemporar Strategy Analysis*, 6th edn, Blackwell Publishing, Oxford, UK.

Grönroos, C. 2006, "On defining marketing: finding a new roadmap for marketing", *Marketing Theory*, vol. 6, no. 4, pp. 395-417.

Harker, M.J. & Egan, J. 2006, "The Past, Present and Future of Relationship Marketing", *Journal of Marketing Management*, vol. 22, no. 1, pp. 215-242.

Hsin, H.C. 2007, "Critical Factors and Benefits in the Implementation of Customer Relationship Management", *Total Quality Management & Business Excellence*, vol. 18, no. 5, pp. 483-508.

Huczynski, A. & Buchanan, D. 2007, "Hawthorne studies" in *Organizatioal Behaviour*, eds. A. Huczynski & D. Buchanan, 4th edn, Pearson Education Limited, Edinburgh Gate, Harlow, pp. 280-286.

Humphreys, J., Ahmed, Z.U., Pryor, M., Hanson, K.O., Peppers, D., Rogers, M. & Borg, J. 2009, *World-Class Bull*, Harvard Business School Publication Corp.

International Standards Office 2000a, *ISO 9000:2000 Quality managekemts systems - Fundamentals and vocabulary*, 2nd edn, International Standards Office, Geneva, Switzerland.

International Standards Office 2000b, *ISO 9004:2000 Quality management systems - Guidelines for performance improvements*, 2nd edn, International Standards Office, Geneva, Switzerland.

Iriana, R. & Buttle, F. 2006, "Strategic, Operational, and Analytical Customer Relationship Management: Attributes and Measures", *Journal of Relationship Marketing,* vol. 5, no. 4, pp. 23-42.

Jong-Sung Lee & Aggarwal, R. 2009, "Identifying Business Processes: the Key Initial Step of Erp Implementation", *Review of Business Research*, vol. 9, no. 4, pp. 121-126.

Kale, S.H. 2004, "CRM Failure and the Seven Deadly Sins", *Marketing Management,* vol. 13, no. 5, pp. 42-46.

Kanji, G.K. & Sá, P.M.,E. 2002, "Kanji's Business Scorecard", *Total Quality Management,* vol. 13, no. 1, pp. 13-27.

Kaplan, R.S. 2009, "Lead and Manage", *Leadership Excellence,* vol. 26, no. 10, pp. 7-8.

Kaplan, R.S. & Norton, D.P. 2008, "MASTERING the Management System", *Harvard business review,* vol. 86, no. 1, pp. 62-77.

Kaplan, R.S. & Norton, D.P. 2006, "How to Implement a New Strategy Without Disrupting Your Organization", *Harvard business review,* vol. 84, no. 3, pp. 100-109.

Kaplan, R.S. & Norton, D.P. 2004a, "Measuring the Strategic Readiness of Intangible Assets. (cover story)", *Harvard business review,* vol. 82, no. 2, pp. 52-63.

Kaplan, R.S. & Norton, D.P. 2004b, "The strategy map: guide to aligning intangible assets", *Strategy & Leadership,* vol. 32, no. 5, pp. 10-17.

Kaplan, R.S. & Norton, D.P. 2004c, "Strategy Maps. (cover story)", *Strategic Finance,* vol. 85, no. 9, pp. 27-35.

Kaplan, R.S. & Norton, D.P. 2001a, "Transforming the Balanced Scorecard from Performance Measurement to Strategic Management: Part I", *Accounting Horizons,* vol. 15, no. 1, pp. 87-104.

Kaplan, R.S. & Norton, D.P. 2001b, "Transforming the Balanced Scorecard from Performance Measurement to Strategic Management: Part II", *Accounting Horizons,* vol. 15, no. 2, pp. 147-160.

Kaplan, R.S. & Norton, D.P. 2000, "Having Trouble with Your Strategy? Then Map It", *Harvard business review,* vol. 78, no. 5, pp. 167-176.

Kaplan, R.S. & Norton, D.P. 1996, "Using the Balanced Scorecard as a Strategic Management System", *Harvard business review,* vol. 74, no. 1, pp. 75-85.

Kaplan, R.S. & Norton, D.P. 1993, "Putting the Balanced Scorecard to Work", *Harvard business review*, vol. 71, no. 5, pp. 134-147.

Kaplan, R.S. & Norton, D.P. 1992, "The Balanced Scorecard--Measures That Drive Performance", *Harvard business review*, vol. 70, no. 1, pp. 71-79.

Kim, H. & Kim, Y. 2009, "A CRM performance measurement framework: Its development process and application", *Industrial Marketing Management*, vol. 38, no. 4, pp. 477-489.

Kim, J., Suh, E. & Hwang, H. 2003, "A Model for Evaluating the Effectiveness of Crm using the Balanced Scorecard", *Journal of Interactive Marketing (John Wiley & Sons),* vol. 17, no. 2, pp. 5-19.

Kotler, P. & Keller, K. 2009, *Marketing Management,* 13th edn, Prentice Hall, Essex, England.

Krajewski, L.J., Ritzman, L.P. & Malhotra, M.K. 2007, *Operations Management: Processes and Value Chains,* 8th edn, Pearson Prentice Hall, Upper Saddle River, New Jersey.

Kumar, V. & Shah, D. 2009, "Expanding the Role of Marketing: From Customer Equity to Market Capitalization", *Journal of Marketing,* vol. 73, no. 6, pp. 119-136.

Langerak, F. & Verhoef, P.C. 2003, "Strategically embedding CRM", *Business Strategy Review,* vol. 14, no. 4, pp. 73-80.

Lawson, R., Stratton, W. & Hatch, T. 2003, "The benefits of a scorecard system", *CMA Management,* vol. 77, no. 4, pp. 24-26.

Leedy, P.D. & Ormrod, J.E. 2005, "Qualitative Research" in *Practical Research*, eds. P.D. Leedy & J.E. Ormrod, 8th edn, Pearson Prentice Hall, Upper Saddle River, New Jersey, pp. 133-155.

Lengacher, D. 2009, "Challenges in Measuring Organizational Performance", *Business Intelligence Journal,* vol. 14, no. 3, pp. 18-26.

Lewis, M. 2000, *Focus Group Interviews in Qualitative Research: A Review of the Literature,* Action Research E-Reports, 2., Available at: http://www.fhs.usyd.edu.au/arow/arer/002.htm.

Likierman, A. 2009, "The Five Traps of Performance Measurement", *Harvard business review,* vol. 87, no. 10, pp. 96-101.

Marr, B. & Adams, C. 2004, "The balanced scorecard and intangible assets: similar ideas, unaligned concepts", *Measuring Business Excellence,* vol. 8, no. 3, pp. 18-27.

Mei-Yeh Fang & Lin, F. 2006, "Measuring the Performance of ERP System --- from the Balanced Scorecard Perspectives", *Journal of American Academy of Business, Cambridge,* vol. 10, no. 1, pp. 256-263.

Mukerjee, K. & Singh, K. 2009, "CRM: A Strategic Approach", *ICFAI Journal of Management Research*, vol. 8, no. 2, pp. 65-82.

Musico, C., Sebor, J., Tsai, J. & McKay, L. 2009, "The 2009 Crm Market Awards", *CRM Magazine*, vol. 13, no. 9, pp. 21-21.

Nair, S. 2009, "CRM From Customer to Community", *Siliconindia*, vol. 12, no. 7, pp. 40-41.

Nørreklit, H. 2003, "The Balanced Scorecard: what is the score? A rhetorical analysis of the Balanced Scorecard", *Accounting, Organizations & Society*, vol. 28, no. 6, pp. 591-619.

Nørreklit, H. 2000, "The balance on the balanced scorecard—a critical analysis of some of its assumptions", *Management Accounting Research*, vol. 11, no. 1, pp. 65-88.

Norreklit, H., Jacobsen, M. & Mitchell, F. 2008, "Pitfalls in using the balanced score-card", *Journal of Corporate Accounting & Finance (Wiley)*, vol. 19, no. 6, pp. 65-68.

O'Sullivan, D. & Abela, A.V. 2007, "Marketing Performance Measurement Ability and Firm Performance", *Journal of Marketing*, vol. 71, no. 2, pp. 79-93.

Pauwels, K., Ambler, T., Clark, B.H., LaPointe, P., Reibstein, D., Skiera, B., Wierenga, B. & Wiesel, T. 2009, "Dashboards as a Service: Why, What, How, and What Research Is Needed?", *Journal of Service Research*, vol. 12, no. 2, pp. 175-189.

Payne, A. & Frow, P. 2006, "Customer Relationship Management: from Strategy to Implementation", *Journal of Marketing Management*, vol. 22, no. 1, pp. 135-168.

Payne, A. & Frow, P. 2005, "A Strategic Framework for Customer Relationship Management", *Journal of Marketing*, vol. 69, no. 4, pp. 167-176.

Pedron, C.D. & Saccol, A.Z. 2009, "What Lies behind the Concept of Customer Relationship Management? Discussing the Essence of CRM through a Phenomenological Approach", *Brazilian Administration Review (BAR)*, vol. 6, no. 1, pp. 34-49.

Peppers, D. & Rogers, M. 2005, "Return on Customer: Setting the Record Straight", *Direct*, vol. 17, no. 13, pp. 18-18.

Peppers, D. & Rogers, M. 2004, *Managing Customer Relationships: A Strategic Framework*, 1st edn, John Wiley & Sons, Inc., Hoboken, New Jersey.

Pine II, B.J., Peppers, D. & Rogers, M. 1995, "Do You Want to Keep Your Customers Forever?", *Harvard business review*, vol. 73, no. 2, pp. 103-114.

Reichheld, F.F. & Sasser Jr., W.E. 1990, "Zero defections: Quality comes to services", *Harvard business review*, vol. 68, no. 5, pp. 105-111.

Reinartz, W., Krafft, M. & Hoyer, W.D. 2004, "The Customer Relationship Management Process: Its Measurement and Impact on Performance", *Journal of Marketing Research (JMR),* vol. 41, no. 3, pp. 293-305.

Rigby, D.K. & Ledingham, D. 2004, "CRM Done Right", *Harvard business review,* vol. 82, no. 11, pp. 118-129.

Roine, L. 2009, *Yritystason tuloskortti - Case: VISMA SOFTWARE OY*, Helsinki School of Economics.

Rosenberg, L.J. & Czepiel, J.A. 1983, "A Marketing Approach for Customer Retention", *Journal of Consumer Marketing,* vol. 1, no. 2, pp. 45-51.

Rust, R.T., Ambler, T., Carpenter, G.S., Kumar, V. & Srivastava, R.K. 2004, "Measuring Marketing Productivity: Current Knowledge and Future Directions", *Journal of Marketing,* vol. 68, no. 4, pp. 76-89.

Rust, R.T., Moorman, C. & Bhalla, G. 2010, "Rethinking Marketing. (cover story)", *Harvard business review,* vol. 88, no. 1, pp. 94-101.

Rust, R.T., Zeithaml, V.A. & Lemon, K.N. 2004, "Customer-Centered Brand Management", *Harvard business review,* vol. 82, no. 9, pp. 110-118.

Ryals, L. 2005, *Making Customer Relationship Management Work: The Measurement and Profitable Management of Customer Relationships*, American Marketing Association.

Seggie, S.H., Cavusgil, E. & Phelan, S.E. 2007, "Measurement of return on marketing investment: A conceptual framework and the future of marketing metrics", *Industrial Marketing Management,* vol. 36, no. 6, pp. 834-841.

Sharma, A. 2009, "Implementing Balance Scorecard for Performance Measurement", *ICFAI Journal of Business Strategy,* vol. 6, no. 1, pp. 7-16.

Smith, C. 2009, "Facebook Is the Future of CRM", *CRM Magazine,* vol. 13, no. 11, pp. 12-12.

Srivastava, R.K., Shervani, T.A. & Fahey, L. 1999, "Marketing, Business Processes, and Shareholder Value: An Organizationally Embedded View of Marketing Activities and the Discipline of Marketing", *Journal of Marketing,* vol. 63, no. 4, pp. 168-179.

Suomen Standardoisoimisliitto 2008, *SFS-EN ISO 9001:2008 Quality management systems. Requirements,* 4th edn, Suomen Standardisoimisliitto, Helsinki, Finland.

Tamošiūnienė, R. & Jasilionienė, R. 2007, "Customer Relationship Management as Business Strategy Appliance: Theoretical and Practical Dimensions", *Journal of Business Economics & Management,* vol. 8, no. 1, pp. 69-78.

Todorut, A.V., Cîrn, D. & Niculescu, G. 2009, "The Relation among Six Sigma and Other Managerial Techniques of Improving the Performances of the Organizations", *Annals of the University of Petrosani Economics,* vol. 9, no. 4, pp. 289-296.

Tsai, J. 2009, *Microsoft's Million-Member March*, Information Today Inc.

van Iwaarden, J., van, d.W., Dale, B., Williams, R. & Bertsch, B. 2008, "The Six Sigma improvement approach: a transnational comparison", *International Journal of Production Research,* vol. 46, no. 23, pp. 6739-6758.

Venkatesan, R. & Kumar, V. 2004, "A Customer Lifetime Value Framework for Customer Selection and Resource Allocation Strategy", *Journal of Marketing,* vol. 68, no. 4, pp. 106-125.

Winer, R.S. 2001, "A Framework for Customer Relationship Management", *California management review,* vol. 43, no. 4, pp. 89-105.

Wymer, G.A. 1999, "Customer Relationship Measurement", *Marketing Research,* vol. 11, no. 2, pp. 39-41.

Yack, D. 2008, *CRM as a Rapid Development Platform: Microsoft Dynamics CRM 4.0,* 1st edn, We Speak You Learn, LLC, Colorado Springs, CO 80907.

Yeung, M.C.H. & Ennew, C.T. 2000, "From customer satisfaction to profitability", *Journal of Strategic Marketing,* vol. 8, no. 4, pp. 313-326.